

# THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LX.

SATURDAY, MARCH 12, 1892.

NO. II.

## ORIGINAL ARTICLES.

### ON THE NATURE AND TREATMENT OF FORMS OF DISEASE CHARACTERIZED BY INDIGESTION, THE PRESENCE OF BILE, URATES, AND URIC ACID IN THE URINE, AND BY NERVOUS SYMPTOMS.<sup>1</sup>

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THERE is a group of cases often met with in practice that has a great interest for us, on account of the large number of the associated symptoms, the obscurity of their origin, the differences of opinion as to their nature, and the difficulties encountered in their treatment.

The patients included in the group to which I refer give us histories that are more or less alike in their essential features, although the complaint for which relief is sought may be very different in different cases. It may be that distress after taking food, or obstinate constipation, or loss of flesh and color are the reasons for their applying for treatment; or any one of a very large number of symptoms of functional disorder of the nervous system may have excited their apprehension of the existence of some serious organic disease. These symptoms range all the way from simple headache or vertigo to absolute inability to perform any mental work. The history of the case is generally something like this:<sup>2</sup>

The disorder began many years ago. The patient's life has probably been a sedentary one, or one filled with great care and anxiety; his hours of eating and sleeping have been irregular, and all the influences have been excited that are likely to disturb the working of many parts of this delicately adjusted piece of vital machinery, which was not made to run forever without friction or break, if no attention whatever is paid to the conditions necessary to its perfect working. Among the earlier symptoms were a loss of appetite, a coated tongue, distress after eating, and constipation. These have

continued and exist at the present time. The distress after eating includes a sense of fulness or weight in the abdomen, which may begin almost immediately after taking food, but is more marked in from one to two hours, and is accompanied by borborygmi and flatulent distention. The patient is depressed in spirits concerning his health and his inability to work with his former energy and interest. Mental depression may be the most marked symptom presented to us. There is frequently insomnia, but more frequently drowsiness, and a sense of weakness and lassitude or inertia after a meal, and, as a rule, after the midday meal.

There are many other ways in which the nervous system may be implicated. Irritability of temper, hypochondriasis or melancholia, hyperesthesia, paresthesia, or anesthesia may all be seen; pruritis is not uncommon, and there may be urticaria. The other special senses may show some slight disturbances. Suddenly developed symptoms appear, as vertigo, which is sometimes only noticed on turning the head to look behind, or on stooping and rising, and there may be palpitation of the heart and dyspnea.

If the urine is examined it is rarely normal. I have before me now the report of the urinary examination of a patient who had suffered for years with the most obstinate constipation, with other symptoms like those mentioned. The color was amber, the specific gravity 1020, the reaction acid. The urates were in excess; there was no sugar, and no albumin, but there was a large quantity of bile. On microscopic examination there were found many uric acid crystals and amorphous urates. The skin of these patients is almost always pale; the proverbial muddiness may be present.

This brief description will give as good an idea of what is usually found as if I were to give the record of cases, but the following brief histories will perhaps illustrate the association of symptoms most usually found. The first of these is in the words of the patient, who wrote it at my request, and if his description may be thought to include exaggerations or perversions of statement, these exaggerations or perversions of subjective symptoms must be taken as symptoms showing the mental state that is more or less characteristic:

CASE I.—“My age is twenty-five; my occupation is that of a stenographer and typewriter. I have done much mental work; I have not used liquor.

<sup>1</sup> Monthly essay read before the Medical Society of the District of Columbia on November 25, 1891.

<sup>2</sup> All cases are excluded here that at any period in their history show any decided alteration in any organ, as dilatation of the stomach, cirrhosis of the liver, degeneration or other changes in the kidney, etc.

My diet has consisted of condiments, much meat, potatoes, fats, sugar. I have always eaten everything hurriedly, and improperly masticated; I drink much water. I have taken very little exercise. My previous health was good until I was nineteen or twenty years old; then emissions (nocturnal) began—from one or two per week to one in two weeks. There was the gradual development of acne. I was also drowsy in the evening, and unable to keep awake. In November, 1889, I began active stenography and typewriting, and study at night. The acne increased. There was bad digestion, coated tongue continually, thirst after supper, heavy stomach, and great appetite. I always got sleepy about 10 or 11 o'clock in the morning when at work; sometimes, about 2 or 3 o'clock in the afternoon. I also had nasal catarrh. Sometimes I felt well, and at others ill; I was always very sleepy from one to two hours after eating. Nose red and shiny. During the forenoon, while typewriting, my head felt as if it were too full, and I had a sensation of heat about the scrotum and anus.

"Milk and food containing much sugar caused greatest heat and sweating of scrotum. My hands and feet were cold at times, but not moist. I was also more or less constipated. Nocturnal emissions continued; memory became poor. This condition was the same until 1890, when I began to have a feeling of a band around the top of my head after work, and heat of back of neck, oppression in back of head, with occasional headache; drowsiness continued.

"At present (November 22d) I suffer most from bad feelings about my head, from a sense of oppression and drowsiness after eating. My complexion is muddy, and the acne continues, but is not so bad. My hands and feet are cold and clammy on taking exercise. I have a feeling of constriction at the pit of the stomach, and I have also a feeling of pulsation there. I wake up every morning about 4 o'clock.

"In May last, after one month's rest, I felt much better, and have not suffered so much since; I was at that time, and have been since, on light diet, avoiding much beef, all fats, and indigestible food. The emissions have almost stopped. I still have weakness in the knees, and am not inclined to make any effort, mental or physical. The bowels are constipated, the movements small and hard."

CASE II.—Mrs. X. in her early life had been in perfectly good health, but at the age of twenty-five found that she was growing very stout, and devoted herself for some years to persistent dieting to reduce her weight. Her plan consisted of eating almost nothing—one chop and a piece of bread in the day, and some indulgence, as ice-cream, at night. She walked many miles daily, and, in time, had the satisfaction of reducing her weight by many pounds. After this she suffered from a severe nervous shock, and for some years she was much depressed in spirits, and travelled about from place to place. She had always been more or less constipated, but there was a gradual aggravation of this condition, and, at the time of which I speak, the bowels were not moved except by purgatives.

During the winter of 1889-90 her nervous system was extremely irritable; she suffered from the most obstinate urticaria, which, from this time until I saw her first in the winter of 1890-91, continued to be her most troublesome symptom. The slightest pressure of her collar or clothing at any point would produce an immediate outbreak of the rash; at no hour of the day or night was she entirely free from it, and life was, in consequence, a burden. For a short time I tried to benefit the urticaria by using the galvanic current, applying one electrode to the base of the brain and spine, and the other to the periphery, but no good resulted from this; on the contrary, the electricity always provoked an outbreak of the rash.

From the abuses to which her digestive organs had been subjected, her digestion was more or less disturbed, the appetite was capricious, and she suffered after eating. Headaches were also of frequent occurrence, and were connected with constipation and unusual indigestion. There was no loss of flesh and no anemia, but her complexion was never clear, the skin having a yellowish, muddy look. I have three separate analyses of her urine before me as I write. The specific gravity was in the first 1031, in the next 1020, and in the most recent 1014. Urates were in excess in all, and in all but the last uric acid crystals were numerous. Bile was present in varying quantity in the first two, absent in the last. There was no albumin and no sugar.

The treatment was chiefly dietetic; beef, mutton, eggs, ham, etc., being forbidden, and chicken, fish, and oysters advised. Vegetables with excess of starch, and all indigestible foods were excluded; she was advised to masticate her food well. A purgative was given regularly every other night, and pepsin and pancreatin were prescribed after food.

Under this treatment the digestion improved, and she had fewer headaches; the bile disappeared from the urine, and the urticaria lessened, but constipation continued. After a summer's stay in an elevated region, where she lived out in the open air nearly all of the time, she returned to the city. She now has urticaria occasionally only, the bowels are frequently moved spontaneously, and her nervous symptoms are less marked. The diet is still continued.

CASE III.—Mr. F., forty-eight years of age, was a chronic dyspeptic for years as the result of over-work and over-eating. Being rich, he abandoned business, and lived abroad under treatment for some years, and returned to this country five years ago. When he came under my care he was better, but was compelled to live strictly according to rule, to avoid subacute attacks of gastro-intestinal indigestion. He had all the appearances of an intestinal dyspeptic—bad complexion, anemic skin, with flabby muscles and reduced weight; tongue always coated and bowels irregular. He was nervous, irritable, and disposed to hypochondriasis. The urine, on repeated examinations, was found to have a high specific gravity, contained urates in excess, uric acid crystals and bile in considerable quantity. He finds relief only by strict diet, and as the temptation to imprudence is very great in

his life, he has numerous occasions for practising self-control. In this way he is usually comparatively well.

CASE IV.—Mr. S. is an overworked professional man, having had a continued strain on his nervous strength for years. His hours of eating have been very irregular, and he has eaten heartily of nitrogenous foods, using stimulants in moderation. For ten years he has been gaining in flesh and now weighs much more than a man of his size should weigh. Several years ago he consulted me; his urine contained lithiates in excess and had a high density. I advised diet and lessened work and called his case "lithemia." He has not followed my advice strictly, and has just been passing through an attack of "lithemic fever," suffering from epigastric and costal pains, loss of appetite, gaseous distention of the abdomen, and constipation. The urine has been loaded with urates, has contained some bile, uric acid crystals, a few fatty casts, and 4 per cent. of albumin. For years his nervous system has been irritable in the highest degree, and he has had a restless, unnatural energy which has been a part of his excess of work.

CASE V.—Mr. C. was a business-man, engaged in work of great anxiety and responsibility. He suffered a great shock in the death of an only son, and after travelling for some months, returned home and devoted himself with renewed and excessive energy to his work. He had always had periodic "bilious attacks" with vomiting, headache, and constipation, but, after the shock referred to, these attacks became more severe and more frequent. His strength began to fail, and finally he was compelled to give up business, and he came to Washington for rest and diversion. I was consulted by him on account of general, obscure bad feelings. I found him thus—nervous, restless, hypochondriacal, complaining of indigestion and constipation. The urine, examined on several occasions, always contained urates and uric acid in excess, bile in quantity, and had a high density. The slightest illness of any sort caused great prostration (subjective) and compelled him to remain in bed for some days, from inability to take enough food to cause a rapid return of strength. Constipation was always marked at these times. Under the effect of a restricted diet, out-of-door life, and rest from work, he gained strength and appetite, the digestion improved, and the condition of the urine changed for the better. But the susceptibility of the nervous system and the digestive system to disturbances from slight causes continues up to the present time.

CASE VI.—Mrs. G., aged fifty-eight years, was always a strong and healthy woman, with the exception of occasional subacute rheumatic attacks, involving the muscles chiefly. For this she has gone every summer to the Warm Springs of Virginia and has returned home improved. In June last she had an attack of subacute gastro-intestinal catarrh, which confined her to her room for a week. The urine then had a density of 1030, contained an excess of urates and uric acid, a large quantity of bile, and a trace of albumin. During the sum-

mer, under a strict diet and aids to digestion, she was able to eat more, but she continued to lose flesh, remained anemic, and was constipated, nervous, and depressed.

In September the urine was almost normal, containing only a trace of bile and her general symptoms were better, but she had gained no flesh and was still anemic. At the present time the urine contains bile, but is otherwise normal. She feels stronger, better, has a good appetite and better color, but has, as yet, gained no flesh. The nervous system has never been much disturbed. She has been depressed about her condition, but that is all.

These cases, and others like them, may be divided into two classes, both having associated digestive and nervous symptoms, but in one the nervous, and in the other the gastro-intestinal and hepatic disorder is more prominent. It is not difficult to recognize the symptoms and to associate them with the organs with which they are connected. In a general way we know that digestion and nutrition are out of order, that the secretion of urine is abnormal, and that the nervous system is deranged, but it is not so easy to give a *name* to the affection or to decide as to the seat of the primary disorder.

What is the nature of the affection? Is it to be found described in text-books? I think in this case, as in many others, we will find that everyday experience with disease does not always conform to the clear-cut teachings of the text-book, and that we cannot always label our cases as satisfactorily as we would like. In other words, human beings have a way of being ill through and through sometimes; they associate their symptoms in such a complex way, that we are not able to call their maladies by any one name or even by any compound name. In cases such as those described, no one name can be given to the condition which might not be replaced by some other name equally applicable. Personal bias will lead to a varied choice of terms; functional disease of the liver, intestinal indigestion, catarrh of the small intestine, colon catarrh, constipation, neurasthenia, lithemia, chronic dyspepsia, atonic dyspepsia, anemia, and hypochondriasis are names used with more or less claim to correctness. Each is correct in so far as it points to some striking feature, but it does not explain or express its relationship to other associated symptoms. The problem is to find out what is the *pathologic basis upon which the symptoms rest* and what is the sequence of events in their history.

Two theories can be suggested, between which it is difficult to choose, since both offer a rational explanation of the mode of origin and symptoms, the one placing the initial disturbance in the digestive system, the other in the nervous system. According to the first, the earliest etiologic influence

was in the patient's irregular habits of eating, his hurried meals and imperfect mastication; these made gastric digestion less perfect, and the acid mass passing through the pylorus was in a less perfectly digested state than it should have been.

Incompleted gastric digestion always involves fermentation; hence the duodenum is made to receive, in place of the soft, acid chyme, a mass containing much unaltered or partly altered nitrogenous matter, along with starches and fats, the whole in a state of fermentation, and bacterial multiplication. The task thus imposed upon the intestine is beyond its power to perform; its own work and the stomach's unfinished work must be done, and decomposition must be stopped. Up to a certain point the pancreatic and intestinal juices and the antiseptic bile are able to meet the demand, but sooner or later the time comes when the digestion of fats, starches, and albuminoid matters in the intestines is delayed or incomplete; decomposition must follow, with resulting formation of organic alkaloids. The liver function is deranged, for bile and urates in excess appear in the urine. These conditions are sufficient to explain many of the symptoms, such as distress, flatulent distention, and borborygmi beginning from one to two hours after eating, constipation and the loss of weight and of strength, because absorption and nutrition must suffer along with digestion.

There yet remains one important feature of these cases to be included in this explanation, namely, the disturbances in the nervous system.

It is well known that microorganisms exist in great numbers in the normal intestine; they are derived from food or water. Their multiplication is attended by the decomposition in the intestine and by the development of toxic products which, in health, do no harm, as they are eliminated in the stools and the urine, or are all destroyed in the liver (Bouchard). The putrefactive processes that develop toxic substances are quite distinct from the digestive processes caused by the action of the ferment of the gastric and intestinal juices.

So soon as the peptones pass from the stomach into the intestines they undergo changes that result in the development of ptomaines and leucocomaines. Gastric juice outside of the body brought in contact with fibrin and then subjected to the action of amylic and butylic alcohol, produces an amorphous alkaloid that kills frogs in doses of from five to ten centigrams, and hares in the dose of one gram.

Indol may be taken as a type of a poisonous alkaloid formed by putrefaction, and constantly found in the intestine. It is formed by the decomposition of tyrosin, which is produced by the action of the trypsin of the pancreatic secretion on peptone. Thus the intimate result of normal digestion

is fermentative decomposition, with the development of a poison. Phenol and skatol are also due to intestinal putrefaction, and stercorin and excretin result from bile decomposition. In health, as I said, poisons are eliminated before they can do harm, but if any changes occur that delay digestive activity, fermentative processes are increased and the intestine becomes filled with a greatly increased number of microorganisms and a correspondingly greater amount of toxic material. Under these circumstances elimination does not free the intestines sufficiently, absorption takes place, and the system becomes infected by the alkaloids of decomposition. Constipation, by delaying the chief means of escape, undoubtedly favors decomposition and absorption, and is a potent factor in disease.

Brunton has shown that the liver stands at the gateway, receives these absorbed poisons into its substance, destroys some of them (as nicotine), removes others from the blood in the manufacture of bile, and forces them back with the bile into the intestinal canal. Here, if they are not expelled, they are reabsorbed, to pass again into the blood through the liver, and to reenter the intestines, and thus the round is continued without the entrance of the poison into the general circulation. If this last should occur, from excess of poison-production or from the failure of the liver to perform its work, general infection would result. Ludwig and Schmidt-Mulheim have found that the blood ceases to coagulate and the circulation is greatly depressed by injecting peptones directly into the general circulation.

Now the point to which I wish to bring these remarks just made is that, given this intestinal decomposition and absorption of toxines, there is a reasonable probability that the resulting infection of the organisms will lead to reactions everywhere, but particularly in the nervous system, and that the hypochondriasis, mental inertia, irritability, and unrest that characterize these cases are the direct results of this infection.

Acute indigestion is sometimes attended with alarming symptoms, resembling those of acute poisoning. The faintness, intermittent pulse, and languor, of which, after eating, dyspeptics complain, may all be due to the action of these poisons on the nerve-centers. Few men have not suffered at some time in their lives from that loss of energy and drowsiness that follow their hurried meals, and we have all many times seen this symptom occur in connection with well-defined intestinal indigestion. The ordinary explanation of mechanical distention and local pressure will not explain these symptoms. The fact that they follow a small meal as well as a large one, and that they entirely disappear when the digestion improves, is a sufficient proof of their

dependence upon fermentative indigestion in the intestines. Headache, giddiness, sleeplessness, sudden loss of consciousness, convulsions in children, have always been thought to be reflex in nature when accompanying indigestion; but it seems in the light of our present knowledge, that they are much more probably due to the presence in the blood of absorbed and non-eliminated poisons that immediately affect the nerve-centers. These symptoms resemble very much the effects of well-known poisons, as curare, for example, and from the suddenness of their onset and quick relief, their relationship to the time of eating, and absence at other times, it seems as if during digestion poisons were sometimes generated in overwhelming doses.

In lithemia there is a close association of nervous symptoms with the presence of urates in the urine. Mental depression can be expected if the urate deposit is large, while with a clear and abundant urine the mind is bright and hopeful. While we do not know what is the precise cause of this excess, we do know that it is always aggravated by an excess of nitrogenous food, the result of overtaxing an enfeebled duodenal digestion.

It is thought that the liver is more closely connected with the formation of urea than any other organ, and that disturbed function in this organ will lead to excess of uric acid and urates in the blood; and it may be that it is this same disturbed hepatic function that prevents the destruction of absorbed intestinal poisons. There is certainly a very close relationship between nervous symptoms in the cases described, and the excess of bile, urates, and uric acid in the urine.<sup>1</sup>

A recent writer<sup>2</sup> attributes some cases of insanity to absorption of toxic agents developed in the course of gastro-intestinal and hepatic disorders, especially gastro-intestinal catarrh. He refers to his asylum experience as showing that he has averted an impending aggravation of symptoms in mild cases of insanity by a brisk mercurial, followed by a few doses of compound jalap powder, and he refers to a suggestive case reported by Willoughby,<sup>3</sup> "in which acute maniacal symptoms, occurring in a man about fifty years of age, were promptly controlled and his reason restored within twelve hours by copious diaphoresis from a hypodermatic injec-

tion of pilocarpine." It was assumed that the elimination of a poison by sweating averted danger.

The question of the continuous production of toxic substances in the intestinal canal in health, and the protection of the organism by physiologic elimination, as well as the auto-intoxication of the organism by the absorption of poisons in alterations of the functions of the gastro-intestinal tract, was developed in detail by Professors Albertoni and Silvia at the meeting of the fourth Italian Congress of Internal Medicine held in Rome. Prof. Silvia enumerates the following substances as probable poisons: peptoxine, organic bases (ptomaines and leucomaines), indol, phenol, lactic acid, ammonia, sulphuretted hydrogen, acetone, etc.

The direct proof of the fact that the nervous phenomena in such cases are due to the absorption of toxic matters from the intestine is not yet found, but the argument in favor of the theory is a forcible one. The existence of indigestion is known by the symptoms; the presence of toxic matters in the intestines in health is proved; fermentation and decomposition constitute the source of this class of substances, and the greater the decomposition (as in indigestion), the greater is their number and amount. In disease, this excess is shown by finding in the urine sulphuric acid, phenol, indican (resulting from transformation of indol), acetone, ammonia, diamine, the alkaloids, and peptones. The relationship of acute indigestion and nervous disturbances, and the association of fermentative dyspepsia with nervous symptoms and an excess of these products in the urine and feces, give sufficient grounds for adopting this theory as reasonable.

The second theory, which is a plausible one, is that the original cause is in a fatigued or overstrained nervous system; that a disordered nervous apparatus does not regulate the functions of the body, and that through the disturbed vasomotor and sympathetic functions the digestive secretions are deficient or altered in quality; hence result indigestion, intestinal catarrh, and all the symptoms of innutrition.

It is primarily, then, according to this view, a neurasthenia—that is, there is an atonic, enfeebled nervous system that does not control and coördinate the functions under its control; with this starting-point we can predict any functional derangement anywhere. The many symptoms connected with the nervous system, their very early development and prominence, go far to support this view, and it is this explanation that is most frequently accepted in these cases. But the difference between the two theories is more apparent than real, and both may be true. I can understand how at one time the overstrained nervous system is the more readily disturbed by the toxic influence, due to indigestion,

<sup>1</sup> In the latest communication on the subject of urea-formation by the liver, the authors do not dispute the idea that the liver produces urea or that there is more urea in the hepatic than in the portal vein; but they do not believe that the liver is the sole or the principal urea-producing organ. They admit that in states of excitation or hyperemia of the liver the production of urea is exaggerated, but think the urea may arise in a process of disassimilation of all the tissues of the body.—*Boston Medical and Surgical Journal*.

<sup>2</sup> Ayres: *THE MEDICAL NEWS*, July 4, 1892, p. 1.

<sup>3</sup> London Lancet, No. 21, vol. i, 1889, p. 1030.

which exhaustion of the nervous system has helped to bring about, and, again, how nervous symptoms may be due to general infection by absorbed poisons alone; or it may be that there is a double origin, and that the total is not complete until the digestion and nerve-supply and associated functions are involved.

In the present state of our knowledge, I do not see how any more definite view can be reached. We have advanced to the point of understanding the danger of indigestion and constipation, the existence and probable absorption of toxic matters in the intestine, the close connection of the liver with these conditions and with the urinary changes, and from this knowledge we gain important indications as to treatment; but beyond this it does not seem possible to go at the present time.

**TREATMENT.**—No treatment can be successful in cases like these which does not result from a survey of the whole field of disorder. It is a case in which comprehensiveness of vision rather than minuteness of observation is necessary—the sort of visual power that comes from a knowledge of the physiology of all the functions and their individual and combined variations.

Exactly the opposite mental state is developed in specialism, as seems to me needed for studying and treating these cases. Here the organ studied—larynx, eye, uterus, or nerve-center—is made the starting-point of observation and comparison, and all associated phenomena revolve round a central axis, but the interdependence of organs and functions, and the relative influence of each in bringing about the result, is not easily grasped by any one person, but still less by the too special student.

In this case, whatever may be the starting-point, whichever is the pathogenic theory most worthy of adoption, the plan of treatment involves a restoration of the altered functions of the digestive and nervous systems to their normal state by improved blood-supply, and a higher and better nutrition of all the tissues.

Digestion is not perfect from defective and deficient secretion of digestive juices that are insufficient and defective from altered blood-supply. Again, the blood is altered in quantity and quality from imperfect digestion, intestinal decomposition, and deficient or altered blood pabulum. In this vicious circle it makes no difference where the coil begins. "All roads lead to Rome," and treatment must travel simultaneously over all roads and by-paths toward cure. A combined and harmonious plan directed to attaining the one object—cure—is almost sure in the end to be successful, while any method that, while benefiting one organ and function, overlooks the condition of other cor-

related disturbances, is unwise and useless. The patient's confidence must first be won, and a close relation must be established between him and his physician. Next, the surroundings must be made as congenial as possible, and anything that can make him hopeful and happy must be supplied.

The prophylactic treatment, of course, includes the avoidance of all causes that overstrain or disturb the functions of digestion and the nervous system. I need not detail in what way the brain and nerves should be kept in the highest state of efficiency by avoiding overwork, and by being spared over-anxiety and worry, and by diversity and diversion in travel. These rules are clear enough; the only difficulty is in carrying them out.

In regard to diet, the lesson must be taught that "what is one man's meat is another man's poison," and that a well man should be fed according to his needs and capacity. Although science is employed in the feeding of other animals, and the law is recognized that for the thoroughbred, the hackney, and the draught-horse the diet should be different, in order to develop and retain the highest capacities of each in speed, endurance, and strength, yet in the case of man, except in athletic training, no law is taught or obeyed. The judge, the clerk, the tailor, the laborer, each requires a different regimen suited to his special needs and habits; in eating, each man should be guided by his hereditary peculiarities, and by his congenital or acquired defects in digestion, and at certain periods in a man's life the food-list should be altered. If we wish to get the highest efficiency from a man in his intellectual or physical life, and to avoid that inevitable breakdown that comes sooner or later to every man who does not regulate his diet according to his age, habits as to exercise, mental work, and digestive activities, we must adapt his food to these conditions. How many men with a gouty tendency live on a gout-inducing diet? How many who need nitrogenous food live on starch and sugar? Medical science and authority should speak on this subject, and instruct a very ignorant and careless world.

The curative treatment must be based upon the fact that intestinal digestion is relatively less perfect than gastric digestion; that the liver must not be overcharged with the results of nitrogenous excess; that fermentation in the intestines must be avoided or relieved, and that prolonged retention of waste matters does harm. Hence the diet should consist of the lighter and more digestible forms of albuminoid food. The temptation is to the reverse of this, and to meet weakness by increasing meat diet and giving raw beef, beef-tea, etc. But beef, mutton, and eggs should be avoided as far as possible, and fresh or salt fish (which recent observation has shown

to be more digestible than fresh fish), oysters, sweet-breads, the white meat of chicken, turkey, and game are to be advised. In regard to vegetables, those that contain the least amount of starch are the best. Lettuce, celery, spinach, onions, raw tomatoes are to be preferred to potatoes, rice, or macaroni. Bread is to be limited in quantity. All farinaceous foods, as oatmeal, grits, granum, tapioca, corn-starch, are bad because they are chiefly digested in the intestine. Fruits, orange juice, grapes, baked apples are agreeable, and not harmful. Gelatin preparations can be given for the same reason.

In regard to milk, there is no definite rule to be laid down; with some it is a typical food; with others it never agrees. But if milk is taken, it should not be used at the regular meals. Being liquid, it is swallowed without appetite, and either its agreeable taste or the idea that it is very nutritious and strengthening induces patients to drink it in considerable quantity. Thus, a supplemental liquid food that is not needed, and that requires digestion, is put into the stomach, increasing its work. Besides, if the digestion is not quickly done, milk easily undergoes fermentation, and this, our most dreaded enemy, enters into action. As a substitute for other foods, as a between-meal food, when only small quantities can be taken at the regular meals, milk, either plain or peptonized, is a valuable addition. Fats are to be cut off when the intestine performs its work imperfectly.

Alcohol in any shape or form is injurious. Sir William Roberts has shown that sherry, claret, port, and hock, in the small proportions of 1 per cent., have been found to paralyze saliva almost completely. While brandy or whiskey do not retard gastric digestion, wines do, and to an extent out of proportion to the small amount of alcohol contained in them. The same is true of malt liquors. But what has a more important bearing on the subject of this paper is the effect of alcohol on pancreatic (intestinal) digestion. In regard to the effect of wines and beer on the digestion of starch, it is found that their retarding influence is entirely due to their acidity, and that as this is neutralized by the bile entering the duodenum, wines are without injurious influence on starch-digestion. Tryptic digestion is only delayed by alcohol in high dosage; in the quantities and proportions in which alcohol is usually taken at meal-time, the absorption of alcohol by the stomach is so rapid that but a small quantity would reach the duodenum, and hence but little injury would follow its use.

There are two serious objections, however, to the use of alcohol in any form and in any quantity in intestinal indigestion; one is that with alcoholic local and general stimulation, more food, especially proteid food, is taken than there is need for; the

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second objection is that alcohol stimulates cardiac action, induces rapid portal circulation and hepatic congestion, diminishes the resistance of liver parenchyma, and brings about the serious results of interstitial change.

According to Roberts, coffee has less inhibitory effect on salivary digestion than tea, which is a powerful retarder of salivary digestion, on account of the large proportion of tannin that it contains. Both tea and coffee delay stomach digestion, but they have no effect whatever on pancreatic digestion. Hence, it may be concluded that the morning cup of coffee, not too strongly infused, may be permitted to one who is accustomed to it, or that weak tea is not hurtful, and is to be preferred as a drink to hot water, both on account of its pleasanter taste and slightly stimulating effect.

The effervescent table-waters rather aid than delay digestion, and if wines are taken the waters neutralize some of the injurious effects of wines, especially as regard their effect on the digestion of starch.

While the various aids to digestion often fail to secure positive results, yet they should be given. As our object is principally to aid pancreatic digestion, we are concerned more with the methods that bring this about. The objections to giving pancreatin after a meal are so obvious that few have much faith in its efficacy; even a short stay in the stomach on its way to the duodenum will expose it to the action of the acid of the gastric juice, and its activity as a ferment be destroyed. Roberts has suggested a plan for giving it that obviates these objections; his method is to add pancreatic extract to food fifteen or twenty minutes before it is eaten. "Certain dishes, as farinaceous gruels, milk, bread and milk, milk flavored with tea or coffee, or cocoa and soups strengthened with farinaceous matters or with milk, are suitable for this mode of treatment. A teaspoonful or two of the liquor pancreaticus should be stirred up with the warm food as soon as it comes to the table; and such is the activity of the preparation that even as the invalid is engaged in eating, . . . a change comes over the contents of the cup or basin, the gruel becomes thinner, the milk alters a shade in color, or perhaps curdles softly, and the pieces of bread soften. The transformation thus begun goes on for a time in the stomach, and we may believe that before the gastric acid puts a stop to the process, the work of digestion is already far advanced."<sup>11</sup> This method, if successful, would remove, in part, the objections that I have urged to the use of farinaceous foods. In feeble or delayed gastric digestion, pepsin and dilute hydrochloric acid, given after food, must always constitute one of our resources.

All these rules are intended to prevent decompo-

<sup>11</sup> Roberts: *Digestion and Diet*, 1891, p. 217.

sition and the development of toxic agents in the intestines, but for some time, at least, the evil will continue, and means must be used to render those products harmless, and to eliminate them. The first object is reached by disinfection of the gastrointestinal canal by means of thymol, salol, naphthol, salicylate of bismuth, etc., the drug to be given before eating, but not within one hour and a half after. Theoretically this is the right treatment, but how far we succeed in carrying it out is a matter of doubt, as the drug has to pass unaltered through the stomach and pylorus into the duodenum.

Elimination is practised by avoiding delay in the intestine and favoring the daily evacuation of the colon. The practice is certainly an old one, and the guide to it has been the reiterated statements of patients that without the daily evacuation bad feelings were inevitable; and they continued to believe this notwithstanding our assertion that moderate constipation did no harm, and that purgatives did a good deal. Now it looks as if they were right, and we were wrong. Delay anywhere in the large intestines means the opportunity for continuing decomposition and absorption of matters unfit for nutrition or injurious to the system. Means, therefore, that favor a rapid transit from cecum to rectum, and that cause the rectum to be emptied daily, must be employed. Cathartics are the last remedies to be advised if the result can be brought about in any other way; a proper diet, change in the habits of life, exercise, and colon massage may accomplish this. If they do not, a small enema of cool water containing some antiseptic, or a mild laxative pill will have to be given. In the choice of a laxative, it does not make much difference what one is selected. Hydragogue cathartics, as Hunyadi and other mineral waters, and drastics, are wrong in every way. A "peristaltic persuader" is best, and the minimum dose that will produce the effect is the one to be prescribed. Electricity has been employed, and is highly recommended; it is used as an excitant to muscular action, and, if properly given, in accordance with the laws of electrical action, it may render great service.

When the toxic products have entered the system, their elimination is favored by diaphoresis, diuresis, and by the inhalation of compressed air or oxygen. Hence arise the benefits of exercise or bathing, friction and general massage, the free drinking of pure water, as Poland water, or some harmless mineral water, as the Lithia waters, the virtues of which depend, in very small part, upon the mineral matters that they contain. In case of muddy skin, with acne, sluggish circulation, cold hands and feet, when there is constipation and a urine dense and loaded with urates and with increased urea, oxygen inhalations would promise a great deal of benefit.

In regard to other drugs, tonics are bad; iron is the worst, and only in those forms in which anemia does not disappear with the improvement in digestion should the more assimilable and least irritating forms be given, as the lactate and pyrophosphate. Bitter tonics are inadvisable; the most they can do is to stimulate the gastric mucous membrane, increase secretion, and it is questionable whether more harm than good is not done by trying to bring this about. Cod-liver oil is objectionable, for the reasons given, and yet in just such cases it is frequently given on "general principles."

The attempt has been made in this paper to discuss the nature and cause of symptoms that we are constantly meeting in our daily practice, and that when we attempt to cure them prove so troublesome to us. There may be many different opinions formed when such a case presents itself for examination, but a comprehensive study of *all* of the symptoms, and an effort to look upon them as closely related and as together forming *one* disease, will help one to arrive at a rational view as to the treatment that should be pursued.

Intestinal chemistry points out to us a probable cause of most of the symptoms, and gives indications for treatment that are of the highest value. But I do not believe that there is any name hitherto applied to this diseased state that expresses the nature, or that is comprehensive enough to include in its meaning its essential features; for while toxemia, lithemia, intestinal indigestion, constipation, functional diseases of the liver, neurasthenia, hypochondriasis, may all be present in any one case, there is not one of these terms that is satisfactory or acceptable.

#### A FURTHER REPORT ON THE TREATMENT OF TUBERCULOSIS BY IODOFORM INUNCTIONS.

BY LAWRENCE F. FLICK, M.D.,  
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In a paper read before the Philadelphia County Medical Society on November 12, 1890,<sup>1</sup> I made the statement that I had obtained some striking results in the treatment of tuberculosis by inunctions with a solution of iodoform in oil. On April 22, 1891, I presented to the Philadelphia County Medical Society a number of cases treated by this method, and gave a detailed account of some others.<sup>2</sup> As it is now nearly two years since I first began experimenting with this method of treatment, I not only feel justified in making a further report on it, but

<sup>1</sup> This paper was published in THE MEDICAL NEWS of November 15, 1890, and in the Transactions of the Philadelphia County Medical Society for the year 1890.

<sup>2</sup> This paper appears in the Transactions of the Philadelphia County Medical Society for 1891.

in a measure feel obligated to give the profession my more mature experience with it.

Before saying anything as to whether my first conclusions have been borne out by further experience, I will give a short synopsis of the cases I then reported, together with an account of them up to date, and will relate a few cases that I have treated by the method since:

**CASE I.**—Female, twenty-six years of age. At the time of last report she had had tuberculosis about two years; had been under treatment with iodoform inunctions about six months; was almost entirely well, having still a slight impairment of resonance over the right apex, and was gaining flesh at the rate of a pound a week. The case continued to do well, and all symptoms of tuberculosis disappeared. Later on she had an acute attack of insanity, from which she likewise recovered. I have not seen her recently, but a member of her family has informed me that she is entirely well.

**CASE II.**—Boy, twelve years of age. At the time of last report he had shown symptoms of tuberculosis for about nine months; had been under treatment with iodoform inunctions about six months, and was to all appearances entirely well. I have seen the boy within a few days, and he continues to be entirely well, although since last report he has had a hemorrhage, and has had to resume the treatment. He is now using the treatment at intervals as a precautionary measure, as he is very much exposed to reinfection, there being two other cases in his family.

**CASE III.**—Sister of Case II.; twenty-four years of age. At the time of last report she had been tuberculous about a year; was in the third stage of the disease; had been under treatment with iodoform inunctions and internal use of creasote in large doses for about six months or more, and was at the time of report suffering a relapse, after having been nearly well. This case is at present in comparatively good condition; the disease for the time being is arrested, although she has gone through one or two severe exacerbations since last report. She has given up all treatment except the iodoform inunctions, which she practises faithfully every day. She is now performing the duties of housekeeper for her three brothers, all of whom have been or are now tuberculous. She coughs very little, eats well, looks well, but inasmuch as she has cavities, she may at any time reinoculate herself, and may have an extension of the disease.

**CASE IV.**—Male, twenty-three years of age. At the time of last report he had been tuberculous about a year; had made great progress toward recovery under iodoform inunctions and large doses of creasote internally; had gained about twenty pounds in weight; was laboring under a recrudescence of the disease, started up by an attack of influenza. He again recovered from the acute symptoms, and promised fair to do well, when in November, 1891, while out driving, he was taken with a severe hemorrhage, which was repeated a number of times, and from which he died in a few days.

**CASE V.**—Male, twenty-four years of age. At time of report had been tuberculous about two years; was in the third stage of the disease; had improved very much under treatment by inunction and large doses of creasote internally; had gained thirteen pounds in weight, and was enjoying comparatively good health. This case gave up treatment, and has not been under my care since.

**CASE VI.**—Male, twenty-six years of age. At time of last report had been tuberculous about five years; was in the third stage of the disease; had improved very much under treatment by inunctions of iodoform and the use of large doses of creasote internally; was in bed at the time with acute symptoms which had apparently been precipitated by a trip to Florida. This case continued to grow worse, and died in September, 1891.

**CASE VII.**—Female, twenty-two years of age. At time of last report had been tuberculous about two years; was in the third stage of the disease; had much improved under the treatment by inunctions and the use of creasote internally; had gained twenty pounds in weight; was at the time suffering from a recrudescence of the disease, which had been set up by an attack of influenza, and was in a bad condition. This case grew rapidly worse, and died shortly afterward.

**CASE VIII.**—Male, thirty years of age. At the time of last report had had tuberculosis for about four years; was in the third stage of the disease; had cavities in both lungs; had been under treatment with iodoform inunctions and the use of large doses of creasote internally for about six months; had had the disease arrested, and had gained much in weight; was coughing very little, and was rapidly gaining strength. This case continued to do well, and gained so much in health and strength that he, on his own responsibility, decided to go to Denver to start in business. During the first few days of his stay in Denver, whilst working hard to get started in business, he had a hemorrhage, from which he died.

**CASE IX.**—Female, twenty-three years of age. Had been tuberculous about three months; was in the first stage; at the time of last report had been under treatment with inunctions of iodoform for about two months; was much improved, and had gained six pounds in weight. This case got entirely well, and is well at the present time. She has been and is now engaged in housekeeping.

**CASE X.**—Male, fifty-five years of age. At the time of last report had been tuberculous about six or eight months; had been under treatment with inunctions of iodoform two months; had gained four pounds in weight, and was in fairly good condition. This case continued to do well, but subsequently disappeared from observation.

Some of the new cases that I have treated by this method are as follows:

**CASE XI.**—Male, twenty-five years of age; in good circumstances, a cigar-dealer. Has been tuberculous about two years. Is physically a well-developed man; father and mother are living and well. For

some years has been much in the company of a young lady who was consumptive, and who has recently died. Began treatment with iodoform inunctions in the latter part of 1890, but when somewhat better discontinued it. Again began the inunctions in April, 1891, and continued them until all symptoms disappeared. At present is following his business, and to all appearances is well.

CASE XII.—Female, eighteen years of age; a store-girl, living comfortably; came to me first for treatment in March, 1891. At that time had enlarged lymphatic glands of the neck, which had been enlarging for about three months; was coughing a good deal, had been losing flesh rapidly for some time, had a pulse of 104, and a temperature of  $99\frac{1}{2}$ °, and had impairment of resonance over the right apex. I put her on iodoform inunctions, had her rub an ointment of iodide of lead into the enlarged glands, and gave her tonics internally. She rapidly improved, and after two months' treatment the glands had materially diminished in size, her temperature was normal, pulse was 76, lung had cleared up, cough had disappeared, and her general condition was good. The girl is at present following her usual avocation, apparently well.

CASE XIII.—Male, about twenty-five years of age; came to me for treatment in the latter part of June, 1891. Had then been in bad health three or four years, had had a cough for a year or more, had had syphilis two years previously, had had what he termed pneumonia six months before, at which time he spat blood, and was generally in a very bad condition. His temperature was  $101\frac{1}{2}$ °, and his pulse 108. There was increased expiratory murmur over the entire right lung and over the upper part of left. There were spots of dulness over both lungs. He had lost about twenty-five pounds in weight. I put him on inunctions of iodoform and gave him a tonic internally. Upon learning his condition he concluded to go South, where his people lived, and I have not seen him since. On December 10, 1891, six months afterward, I received letter from him, in which he wrote: "Dear Sir: About the 1st of last July you prescribed an ointment for me to rub with, which had oil and iodoform for some of its ingredients. I was suffering at the time from pulmonary troubles. It benefited me a great deal. I have since lost the prescription, and, my lungs giving me again trouble, would like to use it. Please be kind enough to send me a duplicate prescription by return mail, as I am anxious to commence it at once."

CASE XIV.—Female, twenty-seven years of age; a store-girl, in good circumstances, with no history of tuberculosis. Came to me first in the beginning of September, 1891. She had then been sick several months, and had lost twenty pounds in weight. Tuberculous deposit and some breaking down in the right apex. I placed her on tonic treatment and creasote internally, and inunctions of iodoform. She improved very rapidly, at the end of a month had gained about seven pounds in weight, and said she felt like herself again. I did not see her again until January, 1892, when she returned, saying that she had been right well, but that owing to the dis-

greeable smell of the iodoform she had discontinued the treatment too soon, and that having grown worse she would like to take it up again. She is now rapidly improving under treatment by inunction.

CASE XV.—Female, forty-seven years of age; married; housekeeper, in humble circumstances; came to the out-patient department of the Rush Hospital for Consumption and Allied Diseases, on March 14, 1891. The record there states that her father and one brother had died of consumption; that she had pneumonia two years previously; that she had not felt well since, and that she had been coughing and spitting a good deal recently. Physical examination showed loud, whistling râles, prolonged expiratory murmur over the right apex, and impairment of resonance on the same side above the clavicle in front and above the ridge of the scapula behind. Her pulse was 80, her temperature  $98\frac{1}{2}$ °, her appetite good, tongue large and somewhat coated, heart-sounds normal, throat congested, bowels regular. She stated that she had been losing flesh rapidly. I gave her hydrochloric acid internally, and put her on inunctions of iodoform. She has kept up the inunctions with scarcely any intermission until the present time, and has had practically no other treatment except a tonic. She has gained about eleven pounds in weight, her cough is entirely gone, she has not expectorated for some months, and all physical signs showing an abnormal condition of the lungs have disappeared.

In addition to the cases just related I have treated a number of others by this method, of some of which, however, I did not keep notes; some I was unable to keep under observation long enough to make them of any value; and in a few the diagnosis was so doubtful that I do not feel justified in quoting them. The fifteen cases which I record in this paper, with possibly the exception of Case XV, were, I think, all cases of tuberculosis.

Of the ten cases which I reported before, four have died, three are at present apparently well, one is enjoying comparatively good health, and two have disappeared from under my observation. The four cases that died were all far advanced in the third stage of the disease when the treatment by inunction was begun; all received large doses of creasote in addition to the inunctions; all had done well under the treatment for awhile, having gained from seven to twenty pounds in weight; two died from hemorrhage; in two the recrudescence of the disease was due to influenza. Of the three cases that are at present well, all were in the first stage of the disease, and none had probably advanced beyond this stage. The one case that is now in comfortable condition was in the third stage when the treatment was begun, but had at that time in all probability but little breaking down. The two cases that have disappeared from under my observation were both in the third stage when treatment was begun, were

both doing fairly well, but evidently became discouraged, and went elsewhere.

Of the five new cases here reported, three are in the third stage, and two are probably in the first stage. The two in the first stage are both apparently getting well, although sufficient time has not yet elapsed to determine that. Of the other three cases one promises fairly to recover, as there has been but very little breaking down, and the other two, whilst much better and still improving, will likely follow the course of those reported in my former paper.

As will be evident from the cases here reported, the conclusions reached in my former paper, read before the Philadelphia County Medical Society last April, have been borne out by my further experience. Iodoform will cure tuberculosis in the first stage, and it acts better when administered by inunctions than when given by the mouth. When the disease has advanced to the second or third stage iodoform may do good, but can no longer be depended upon as a curative agent. As I stated in my former paper, creasote should then be given together with iodoform, and given in large doses. If given diluted with hot water, as much as fifteen drops can be taken with comfort. It seems to me, indeed, that creasote is the drug to be relied upon in the second and third stages of the disease. I, however, use the iodoform inunctions in this stage for the reason that the tuberculous nodules in a given case do not all break down at the same time, and that whilst some nodules may be broken down, or have already broken down, there may be many that are still in the first stage.

Along with specific treatment I always use tonics and forced nutrition. Much of the success that I ascribe to specific treatment may of course be due to the tonic and nutrient treatment, but I am bound to say that my results with iodoform inunctions and creasote together with tonic and nutrient treatment are much better than they were before I used the inunctions.

#### *INJURIES OF THE FOOT.<sup>1</sup>*

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WHEN the foot is subjected to a traumatism adequate to cause a fracture, there is usually sufficient injury to the soft part to constitute a compound fracture. Viewed from a mechanical standpoint, the foot is a double arch for support and motion, consisting of a few bones held in place by ligaments, and the fascia plantaris, which arises from the os calcis, extending forward into slips and attached to the metatarsal bones and the phalanges.

The integrity of the arch depends upon the integrity of the ligaments and fascia. Mechanically, the foot is a lever of the second class, the tibia the load, the tendo Achillis the power, and the anterior extremity of the arch—the metatarsal bones—the fulcrum. In adjusting artificial feet these simple principles in mechanics are observed.

Fractures of the foot are usually compound, often multiple. The cause is usually a crushing traumatism, as by a heavy piece of iron, powerful machinery, or the wheel of a railway carriage.

The diagnosis, with probably a few exceptions, rests on the usual symptoms of fracture. Frequently there is a "sprain fracture" of the astragalus, which gives no positive symptom of such lesion, and often cannot be detected except upon the operating-table or in the dead-house. I have several times found a comminuted fracture of the head of the second metatarsal bone, when no such fracture was indicated by the ordinary rules of diagnosis. The reason for this exception is apparent when the peculiar position of the bone is taken into consideration. Its head is held as in a vice immovable in a mortised depression, on its internal side, by the internal cuneiform, the posterior by the middle cuneiform, the external by the external cuneiform. Being thus wedged in, when subjected to a traumatism it will break, because its position is uncompromising, receiving the force much augmented by high leverage, thus causing a fracture which without this peculiar mechanical disadvantage would not occur.

When the violence is lateral the tension on the head will be tenfold greater than the force applied, by reason of the propinquity of the fulcrum and the load and the length of the lever. Moreover, this fracture will rarely disclose its presence by crepitus or deformity, even though it be multiple. In making a prognosis of a severe contusion of the anterior part of the foot, the probability of such fracture is to be well borne in mind. Fortunately, the function of this bone is not *per se* important.

Fracture of the toes is readily discovered—the treatment simple, the prognosis good. Even a multiple fracture is promising. I have frequently seen compound comminuted fractures of the toes readily unite. The treatment is simple, and in the event of a compound fracture the result is almost entirely dependent on the success or failure in attaining asepsis. As to splints, none are needed. Each toe should receive a bandage of gauze closely applied, the plantar surface of the toes being packed with antiseptic gauze, until by the ordinary pressure of the bandage the gauze will sufficiently support the fragments. The dorsal surface is likewise padded, so that the plantar and dorsal surfaces at every point will receive an equal pressure. If fracture be compound, the blood that will ooze into the bandage will

<sup>1</sup> Read at the Cuyahoga County Medical Society, November 5, 1891.

materially improve this soft splint. Nosplint has been devised that yields better results than this method. Unyielding splinting will tend to cause deformity. In fracture of the metatarsals, reduction, closely applied bandage, selective padding, elevation, with ordinary means of combating inflammation, will succeed. If the bones are comminuted and displaced, resection may be performed at any point, regardless of articulations. This, however, will rarely be necessary. Fractures of the tarsus are usually compound and comminuted. Even then there is considerable hope of preserving the foot, especially if the arch is not wholly destroyed. Close bandaging, elevation, rest, antiseptic dressings, are required. Simple plaster-of-Paris bandage is the best. Absolute rest of the foot must be secured, leaving it in the normal position of repose. It is well to bandage the leg, to keep the muscles at rest. The astragalus is most frequently fractured, usually from transmitted violence.

If the fracture be compound, and the fragments cannot be replaced, excision may be practised. I have treated several fractures of the astragalus. In one case a machinist fell some distance, striking on his feet. He was unable to step on his foot, and suffered intense pain. The line of fracture was antero-posterior, the internal fragment being displaced. The fragment was replaced with considerable difficulty by direct pressure with one hand, slowly moving the foot to and fro with the other. There was a tendency to eversion. Adhesive straps were applied over the fragment, and extending three-fourths the circumference of the foot. A pad of gauze was placed over the adhesive, and held in place by a closely applied bandage. A basswood splint was applied to the inner side of the foot to prevent eversion. Inflammation was combated by packing the foot and ankle in ice, and keeping them at rest in an elevated position. The ankle was limited to one-fourth of its normal motion after two months. In four months, by systematic massage and passive motion, more than half of its function was restored. In another case, fracture of the astragalus was caused by a fall from a freight car, striking with the foot upon a steel rail. The fracture was simple, displacement slight, yet the amount of callus thrown out was extensive, causing almost an entire loss of function of the ankle-joint for more than a year. Almost two years have now elapsed; the callus is wearing away with time, and the foot is becoming more useful. In treating fractures of the os calcis, the greatest difficulty presented is to overcome the tendency to displacement by the traction of the tendo Achillis. Although I have never employed it, subcutaneous tenotomy strongly recommends itself as an adjuvant in the maintenance of apposition.

Lacerations and contusions present no features that cannot be treated on general principles. When the foot is lacerated, it has been my custom not to spare soap and brush. After cleansing I immerse the part for five minutes in a bichloride solution. The application of antiseptic dressings, with elevation and rest, insures primary union in the vast majority of cases. Punctured wounds of the sole of the foot often require especial attention, by reason of the tendency of closure of the aperture of entrance of the wounding substance. In my opinion every punctured wound of the foot should, as a routine practice, be amplified by a free incision, and a search made for any foreign substance that may have lodged therein. After irrigating with a strong antiseptic solution, if any further doubt remains as to the asepsis of the wound, I drain it, and apply a moist antiseptic dressing. In any case, at any time, if there arise local elevation of temperature and throbbing pain, free incision must be immediately made. The consequence of neglected or maltreated punctured wounds of the sole of the foot are only too well known to require mention here. There is another class of injuries that often present difficulties. I refer to that class in which some constitutional disease or dyscrasia exists, that presents a culture soil for surgical microorganisms. A slight wound, probably only a contusion, will make a point of least resistance, and a pathologic process far-reaching and disastrous will speedily follow. Constitutional treatment is important. If there is extensive loss of the soft parts a tedious recovery is unnecessary, if the wound is in a healthy condition. In these cases skin-grafting will very rapidly close the wound. I have recently grafted by Thiersch's method with most gratifying results. The patient had suffered a comminution of the bones and the soft parts of his foot by the fall upon it of an iron bucket weighing a ton. The second metatarsal bone and the corresponding toe were amputated. The remainder of the mangled foot was placed in a warm, moist, antiseptic dressing. The integument suffered molecular death, leaving the half of the dorsum of the foot without integumental covering. At the end of two weeks the entire surface was clean. This surface, after cutting away the granulations, was covered with strips of integument taken from the patient's arm in strips about three-fourths of an inch wide and two inches long, their margins being placed in close linear coaptation. The wound was dressed with plain sterilized gauze and absorbent cotton. The dressings were kept warm and moist with a solution of boric acid, and changed in four days. The grafts all grew, and in two weeks the integument transplanted was strong enough to allow the patient to walk about with safety. Where the grafts had been placed there was a depression of half

an inch below the surface of the surrounding skin. This rapidly filled up. During the course of treatment of this wound, with extensive denuded surface, there was no pus nor any pain. I did not find it necessary to anesthetize the patient to cut the grafts, as they were made very thin, scarcely causing capillary hemorrhage. The grafts are said to grow best when transplanted in the same direction on the limb as they were *in situ*.

Consistent with a healthy stump when amputation of the foot is indicated at a point beyond the tarsus, every possible atom should be saved. On the contrary, unless the risks to life are too much augmented when amputation on the proximal side of the tarso-metatarsal articulation is indicated, the whole foot should be sacrificed and amputation of the lower third of the leg be practised, that the unfortunate victim may be duly and truly prepared for an artificial limb.

Manufacturers of artificial limbs are almost unanimous in their disapproval of the tibio-tarsal and tarsal amputations. Experience has taught them that the difficulties encountered in making a useful substitute for a part of the foot are only equalled by the painful disappointment of the unfortunate victim. The mechanical reasons for this difficulty are apparent when we consider the anatomy of the foot.

In all of these operations—Chopart's, Hey's, Lisfranc's, Forbes's, Lignerolle's, Pirogoff's, etc.—you leave a foot that has no value except to carry weight. In the Chopart, Forbes, Hey, or Lisfranc amputations the os calcis remains. The flexor tendons are severed, the extensors remain. There will be a contraction of the gastrocnemius and soleus muscles, with consequent drawing downward of the extremity of the stump, causing pressure on a usually very sensitive cicatrix. In the various other operations, as those of Pirogoff, Le Fort, Guenther, etc., there is insufficient space left for the mechanism of an artificial joint. However, Syme's operation is probably the best that can be performed below the lower third. If the stump can bear pressure, a fairly useful member may be made. All these operations usually leave worse than useless appendages—as an endless source of annoyance to the instrument-maker, torture to the patient, and regrets to the surgeon. The argument of greater mortality against operations on the lower third of the leg has lost weight since the introduction of modern antiseptic surgery. The relative mortality given in statistics is not a fair comparison, as the tables are drawn from an era of surgery in which these operations were performed in preference to the leg operation, so that the cases of this amputation were drawn from injuries much more extensive and serious. I am unwilling to admit that the mortality of operations upon the lower third of the

leg, practised on healthy limbs, will be any greater than that of the complicated tarsal and tibio-tarsal amputations.

In amputation of the leg the cicatrix should be made to lie on one side, preferably the posterior side of the stump.

In advocating the abandonment of operations that bear the name of renowned surgeons; that have been taught and practised for generations; and that have occupied a prominent place in the best surgical literature through numerous editions, I wish to remind that the wonderful advances in prosthetic science, and the decreased mortality of major amputations through aseptic surgery, are factors that unfortunately were unknown to the older surgeons, else the illustrious name of Chopart would not bring to every surgeon's mind visions of suffering cripples. I fully appreciate that the highest type of surgery is produced by conservative surgeons; but I oppose that conservatism which prevents a patient from obtaining relief from his misfortune by rendering the stump unfit for the application of an artificial limb.

In order to facilitate discussion, I submit the following propositions :

1st. That in open wounds asepsis is attained, if at all, more certainly through the employment of antiseptics.

2d. That unyielding splintings are not indicated in treating fractures of the toes. That the head of the second metatarsal bone is especially liable to suffer comminuted fracture.

3d. That in compound, even comminuted fractures of the tarsus, if in doubt as to the propriety of attempting to save the member, apply moist, warm antiseptic dressings, and await further indications. Suppuration should be the exception, if the case be well managed.

4th. Ordinarily, amputations between the junction of the lower and middle thirds of the leg and the tarso-metatarsal articulation should not be made. At all other points, save all possible.

## CLINICAL MEMORANDA.

### CAMPHORIC ACID FOR THE NIGHT-SWEATS OF PULMONARY TUBERCULOSIS.

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PROBABLY there is nothing so unpleasant or aggravating in tuberculous patients as the profuse sweating that occurs either in the morning or during the entire night. The depression following it does not seem to be due to the sweating itself, but rather to the effects of a

gradual increase in the quantity of carbonic acid gas in the blood, incident to the difficult interchange of gases in consequence of the pulmonary affection. It is well known that in normal respiration the blood does not contain so continuously a high percentage of carbonic acid gas as will cause a less sensitive condition of the centers governing respiration. But in pulmonary tuberculosis, when the energy used in the daily exertions, from excessive coughing or other physical causes, more than exceeds the supply of energy and nutrition that can be furnished by the body, the respiratory centers are greatly depressed, and are not stimulated so quickly by a percentage of carbonic acid gas that normally would affect those centers. The centers presiding over the functions of the sweat-glands, not being affected by the physical causes, respond to the increased stimulation, and pour forth their secretion abundantly. The proper therapeutic mode of combating this functional perversion would seem to be to use such a drug as shall stimulate the respiratory centers, and thereby cause the elimination from the blood of more carbonic acid gas, and in this indirect manner act as an anhydrotic.

Camphoric acid seems to effect this object with less derangement and more satisfactory and lasting results than any other drug. This remedy is best given in doses of twenty grains from four to six hours before the period of sweating is expected. The best method of administration is dry on the tongue, and washed down with a little water. The taste of the drug is not unpleasant; neither does it produce the gastric irritation so frequently experienced with many medicinal agents used under like conditions.

During the last six months I have used it in a large number of cases,<sup>1</sup> with the very best results. That an idea may be had of how it has acted, the following are the brief histories of some of the severe cases in which it has had the most prompt effect.

Case No. 441, a minstrel, twenty-five years of age, had a chancre two years previously. Physical examination demonstrated a well-marked interstitial pneumonia of the larger part of both lungs. His condition was very good. He complained of the usual symptoms of the disease, but had no sweating. The patient grew slowly worse during the next month, at the end of which time the bacilli of tuberculosis were found in the sputum. Exactly one month after the first examination, he was suddenly taken with profuse cold sweatings about 3 A. M. Camphoric acid (20 grains) was ordered and given about 11 P. M. The sweating did not take place the next morning, nor on the day following, but on the third morning it again appeared. The drug was administered every other night, from four to six hours before the expected time of sweating. But three doses were given. From the time of the first sweating symptoms of tuberculosis began to appear. These continued to increase, and were followed by death two months later. One week before death dry pleuritis occurred. No sweating took place after the third dose of camphoric acid, sixty-two days before death, although the patient was greatly emaciated and very weak. The autopsy showed syphilitic thickening of the connective-

tissue structures, well-marked pulmonary tuberculosis, and recent pleurisy.

Case No. 709 was a stonemason, about fifty years of age. The entire right lung was badly affected. Bacilli were found in the sputum in large quantities. Pulmonary disease existed, complicated with tuberculous enlargement of the cervical, axillary, and, in fact, all of the glands on the right side above the diaphragm accessible to examination. These glands grew to enormous dimensions, and were at times painful. The patient's general condition was so very bad that he was placed in the hospital. Under better regimen he greatly improved. In this case the sweating and following depression were marked. Several drugs were tried, but discontinued for different reasons. Camphoric acid controlled the sweating better than any. It had to be discontinued for several days before a lasting impression was made. The man continued to grow worse, and two months after first seen was taken home, and died shortly afterward. No autopsy was made.

Case No. 446 was a wood-engraver, twenty-one years of age. He presented all the symptoms of pulmonary tuberculosis of some standing. Bacilli were found in the sputum. He complained severely of weakness from profuse sweating. Little benefit was received from the administration of several different drugs for three weeks. Finally, 20 grains of camphoric acid were given. Only two doses were necessary. He had had no recurrence of the sweats for four months afterward.

Case No. 485 was a cigarmaker, thirty-four years of age. There were the physical signs of tuberculous affection of both apices, with the symptoms typical of that condition. Bacilli were found in the sputum. One week after first seeing the patient, he was suddenly seized with an attack of acute diffuse nephritis, which almost resulted in death. In a few weeks he improved, but he still had a chronic affection of the kidneys. He has had several severe attacks of sweating during the last four months. Two doses of camphoric acid were always sufficient to give him relief for at least a week. His condition at the present is very good for one with chronic nephritis and pulmonary tuberculosis.

Case No. 757 was a stonemason, fifty years of age. In the course of his illness—chronic fibroid "phthisis"—he was troubled for several weeks with profuse sweating, but after giving camphoric acid in slightly increased doses for two nights the sweating did not appear for several weeks.

Case No. 700 was by trade a printer, thirty-nine years of age. This case is similar to No. 441 in having begun as a syphilitic induration of the pulmonary tissues, followed by a chronic tuberculous process. He suffered for several months with recurring periods in which he seemed more prone to severe night-sweats. Treatment, as pursued in the other cases, gave him immediate and lasting relief.

Case No. 704 was a barber, thirty-five years of age. Both apices were affected, and bacilli were found—an undoubted case of pulmonary tuberculosis. One dose of the acid stopped the sweating, which did not return for several weeks, although the man did not improve materially.

Case No. 670 was twenty-three years old, with chronic pulmonary tuberculosis. Sleep was impossible on ac-

<sup>1</sup> At Prof. W. H. Porter's clinic on general medicine, New York Post-Graduate Medical School and Hospital.

count of profuse sweats. One dose gave the relief desired.

Case No. 702 was a tailor, forty-eight years of age, with chronic pulmonary tuberculosis, complicated by repeated nasal hemorrhages, which were followed by periods of great sweating. Good nutrition and several doses of the acid gave relief.

Case No. 707, thirty-two years of age, had an acute attack of pulmonary tuberculosis, from which he seemed to partly recover. He complained a great deal of sweating and of dyspnea. Examination revealed a chronic pulmonary tuberculosis, involving the larger part of the right apex. Bacilli were found in the sputum. His sweats at times used to last all night. After this condition was ameliorated by the use of camphoric acid, he was greatly improved. Unlike the other cases, the sweats did not stop at once, but gradually became less and less, until they finally disappeared.

It will be noticed from the foregoing reports that only a very few doses were required to give prompt, and in many cases lasting, relief. After taking the camphoric acid all of the patients were able to sleep better, and on awakening, felt stronger and refreshed.

#### *ENDOCARDITIS OF THE AURICLE AND RUP- TURE OF THE CHORDÆ TENDINEÆ OF THE MITRAL VALVE.*

BY CASPAR W. SHARPLES, M.D.,  
OF SEATTLE, WASHINGTON.

THE subject of this note was a man about forty-five years of age, whose history is very brief and incomplete on account of his condition at the only time he was seen in life by the writer.

The essential points are these: He was a laborer, given somewhat to drink, subject to exposure, etc., an occupant of one of Seattle's lowest ten-cent lodging-houses. About eight years ago he had an attack of acute inflammatory rheumatism. He was sent to the King County Poor-farm, with a diagnosis of pneumonia.

The patient had a subnormal temperature; cold, livid extremities; a pulse rapid, very weak, irregular; and, at times, no pulsations could be detected in the radials; though, by stethoscopic examination, the heart was found to be beating. The vessels, both arteries and veins, at the base of the neck, pulsated freely. Respiration was rapid and shallow. Inspection showed a diffuse, undulating pulsation over the precordia, with the apex an inch outside of the nipple line and in the upper portion of the sixth interspace. No thrill could be found on palpation, and percussion showed a quadrate viscus. On making a stethoscopic examination, with the first sound a loud, rough murmur was heard, which could be traced into the axilla and back, and was well heard over the right lung. Just preceding the first sound and murmur was a second murmur, which, though presystolic in time, gave none of the usual characteristics of a presystolic murmur; and I am at a loss how to describe the sound. It was not soft, nor was it a squeak. It was very short. No symptoms of disease of other organs appeared.

In a few hours after I saw him he died; the section was made sixteen hours after death.

The cranium was not opened on account of darkness and lack of time. The large veins of the chest were engorged with dark, semi-clotted blood, and all four cavities of the heart were filled with the same material. The organ was large, quadrate, dilated, and the muscular tissue was soft and flabby; while there was general thickening of all the walls, except that of the right auricle. The thickening was especially noticeable in the left ventricle and auricle. No lesions were found on the right side.

Upon opening the left auricle a patch of old endocarditis was found, commencing at the free edge of the posterior leaflet of the mitral, and extending to near the top of the auricle, measuring over two inches in length. It was somewhat hour-glass in shape, being one and a half inches wide at the top, nearly two at the base, and only three-fourths of an inch in the middle. This patch presented smaller, roughened areas, raised not more than a sixteenth of an inch above the general endocardial surface. The largest was a fourth of an inch in diameter; then smaller, polypoid masses were found, closely constricted at the base. There were smaller areas of smooth endocardium among these masses, but these, too, were thickened. The vegetations extended to the anterior leaflet but sparingly, while the longest and highest mass was found at the left junction of the leaflets. One very narrow, thread-like vegetation, five-sixteenths of an inch long, was found on the valve. No disease was found on the ventricular surface of the valve.

The other pathologic conditions equally interesting are as follows: There was a rupture of the chordæ tendineæ, which were changed in appearance and character, being all that were attached, most anteriorly and nearest the center of the valve, with only one remaining on the left; thus leaving the valve to flap back and forth without its normal control. The longest chordal fragment on the valve was three-fourths of an inch long. It was softened, thickened, and beaded, smooth over most of its length, with one hanging vegetation.

Attached to another broken chorda was a mass half an inch long and one-eighth in diameter, fastened by a narrow, small, short pedicle. Otherwise it was free to flap about in the ventricle. The other chordæ presented no peculiarities, except that they were thick, soft, and very friable.

One of the transverse bands connecting two chordæ near their origin presented a large vegetation.

No ulcerations could be found anywhere in the heart. The coronaries were stiff, with here and there a plate of calcareous deposit, and the vessels throughout the body were stiff. The heart-substance presented no peculiarities. The spleen had three recent hemorrhagic infarcts. Otherwise there was nothing of special note.

To me this was a unique specimen, and consequently I have described it more fully than I otherwise would have done. So far as my limited range of reading goes, I can find no parallel case.

The lesions of the chordæ are peculiar. In a fibroid heart are occasionally found thinned and lengthened chordæ, associated with a fibroid condition of the columnæ carneæ, which also may be thinned and lengthened. Our specimen presents no evidence of fibroid degeneration.

Again, associated with extensive chronic induration,

thickening, and distortion of the mitral may be found shrunken, shortened, and thickened chordæ, with one or two ruptured ones. In other mitral cases there may be a vegetative deposit around the attachment of the chordæ to the valve, or the chordæ may adhere to one another; and, in addition, they may be softened and friable, though rarely are they found ruptured.

In view of the infarcts, we might suspect an ulcerative endocarditis, but no ulceration could be found, nor any new vegetations. Their presence is easily explained by loosened fragments from the chordæ, which have, in turn, plugged the splenic arterioles.

Auricular endocarditis is a very rare condition, and such a one, too, would turn our attention to ulcerative endocarditis, as this affection has no regard for the place in which it plants its vegetations.

To interpret the presystolic sound is another question. The auricular endocarditis may explain all or a part of it, or it may have been caused by the sudden and rapid return of the valve. From the number of chordæ destroyed, and the post-mortem mobility of the leaflet, it seems that the systole of the heart would force the leaflet through the orifice into the auricle, it being carried back with the regurgitant blood, and then, in turn, the commencement of the auricular systole would force the valve back through the rushing blood-current, and thus produce this sound; or this fact and the auricular endocarditis combined would do it. However, from the position of the auricular part of the disease, unless it be that on the auricular surface of the mitral, I judge that this played no part in generating the presystolic murmur.

#### *AN AGGRAVATED CASE OF CHOREA.*

BY GEORGE A. HIMMELSBACH, M.D.,  
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BUFFALO, N. Y.

ON Sunday, November 29th, a patient, Lena S., was brought to the hospital, who threw herself about in bed, all her extremities exhibiting constant violent and irregular movements. The facial muscles and tongue were also involved, causing distortion of the face and rendering her speech irregular and jerky, and at times even impossible. The case was promptly diagnosed as chorea.

The following history was obtained from relatives: She was eighteen years of age, German, the youngest of a family of thirteen children. She came to this country one year ago, and her parents being in meager circumstances, the child was obliged to seek employment as a domestic. Menstruation began at the age of twelve years, and with the initial period came these irregular muscular twichings, presumably choreic; they continued for a considerable time and finally passed away.

I could obtain no hint of hereditary neuropathic tendencies, save that a sister, the seventh child of the family, at the age of ten years, had symptoms that the parent described as similar to those in this girl, and which were very severe, lasting a short time and resulting fatally.

[Strümpell reports having seen three fatal cases of chorea in his private practice.]

During the three months prior to entering the hos-

pital, the patient suffered from repeated attacks of articular rheumatism, affecting the joints of all extremities, and during the latter part of the three months she never left her bed. On the night of November 25th, four days before entrance, it was observed that her hands, arms, and legs were in a state of irregular contraction, and from this time the contraction gradually became more violent. At the time of admission she suffered from no rheumatic pains, but examination of the heart revealed most pronounced mitral and aortic systolic bruits.

She was first given calomel, 10 grains, also chloral hydras, 45 grains, in fifteen-grain doses, during the night; the following morning she was given large and frequent doses of sodium bromide and chloral, with little effect. Catheterization was necessary.

Antipyrin was now given in repeated ten-grain doses, in combination with the bromides and chloral, but all these proved of no avail. For four days the girl had taken no nourishment, except small quantities of milk given by the spoonful, carried to the posterior buccal cavity. Mastication was out of the question, and deglutition was possible only when she was fed in the manner indicated.

Nutrient enemas were now given, consisting of peptonized milk, peptonized egg, beef peptones, and whiskey. This method of feeding was continued for several days. During this time the girl's symptoms were growing worse and her movements more violent, so that restraint was necessary. Twice, when unobserved, she threw herself from her bed.

On December 4th, after the liberal use of bromides, chloral, and antipyrin, with no success, Dr. Stockton suggested hyoscine as recommended by Da Costa. I accordingly gave hypodermically of the hydrobromate of hyoscine,  $\frac{1}{10}$  grain, at 6.30 P.M., followed by  $\frac{1}{10}$  grain at 10.30 P.M., and  $\frac{1}{10}$  grain at 2.30 A.M. (December 5th). Each of these doses was followed by a short period of quiet. I next gave sulphonal in 20-grain doses, but with no more effect. It was now suspected there might be an hysterical element about the case; points of anesthesia were found, particularly the conjunctivæ, which, at times, were anesthetic. Mistura asafetidae, in large doses, was given, which seemed to dispel this condition.

It was now very evident that some other expedient must be undertaken. She had reached that point where food could not be tolerated, either by the mouth or by the rectum; in five days she had not had more than six hours' sleep. Her pulse was rapid, 164, and feeble; the temperature, 102.6°. She had moved and thrown herself about so violently that the shoulders, elbows, nates, heels, etc., were so badly chafed as to cause capillary oozing. It was finally decided to try a method recently advocated, consisting in strapping the body to a suitably arranged board, preventing even the slightest movement. Before trying this, however, it was suggested, as a last resort, to try morphine.

On December 5th, at 8 P.M., the sulphate,  $\frac{1}{4}$  grain, was given hypodermically. This was followed by the longest period of rest she had had. The effects of the drug passed off in a few hours and at 3.15 the following morning the same dose was again repeated. This was followed by the happiest results: sleep and

quiet ensued, lasting six or eight hours. From this time on, the chorea so abated as to call for no more sedatives.

In addition to the remedies directed toward quieting her, she was put upon Fowler's solution the day after entrance, commencing with gtt. v. t. i. d., and increasing one drop daily. This was continued until gtt. xvi were given t. i. d.; at this point the toxic effect of the drug was noticed, *e. g.*, puffiness of the eyes, gastric disturbance, markedly injected conjunctivæ, and cutaneous eruption. It was then discontinued for three days and again started on gtt. x doses.

As soon as she was restored to quiet, she began to take nourishment by the mouth, and improvement thenceforward was quite rapid. My attention was now called to the fact that the girl's right lower extremity was paralyzed. There was complete loss of extension; she could flex the limb to an angle of 90°, but extension was impossible. Sensation was only slightly impaired, the patellar reflex lost.

This I found to be not an uncommon sequel of chorea and described by writers as post-choreic paralysis (or paresis as in this case). Upon close questioning, I learned that monoplegia also followed her first attack of chorea, but passed away after several months. The treatment now followed was Fowler's solution, mist. asaftetida, strychnine, cold spinal douches, and faradism to the limb. In a short time the function of the limb was restored and the girl was discharged from the hospital apparently cured.

#### ACQUIRED CRURAL OVARIAN HERNIA.

BY JOHN S. MILLER, M.D.,  
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THE following case is reported for the value it may possess as a contribution to statistics. Hernia of the ovary is a rare affection. It is generally congenital and bilateral, and is usually associated with some congenital malformation of the genital apparatus, such as the absence of the uterus or imperfect development of the vulva or vagina. Albert, in his *Lehrbuch der Chirurgie und Operationslehre*, quotes Englisch, of Vienna, who, in an exhaustive study of thirty-eight cases, found that in about three-fourths of the cases the hernia existed in the inguinal region, the others being obturator, ischiatic, umbilical, and crural ovarian hernia. The latter variety is quite infrequent. In a collection of seventy-eight cases, Puech found only sixteen in which the ovary passed through the crural canal, and it has never been found before the twentieth year; it is, therefore, never congenital. In the literature at my command I have found recorded but one case of acquired inguinal ovarian hernia as the result of a preexisting intestinal hernia. Meadows (*Obstet. Trans.*, vol. iii) has recorded an interesting case, in which there was primarily an ordinary irreducible inguinal hernia. The tumor in this case gave rise to so much inconvenience that it was removed by a surgical operation.

Winckel, Tait, Englisch, Olshausen, and Albert agree that a large proportion of ovarian herniae are congenital, particularly the inguinal variety, in which a vaginal process of the peritoneum forms, and causes the exit of the ovary in a manner analogous to the descent of the

testicle. It is not improbable that the acquired variety may obtain in this region, owing to a lengthening or to elasticity of the infundibulo-pelvic ligament, or of the ovarian ligament. As the result of a strain or injury these relaxed ligaments may permit the ovary to be forced or to gravitate through a hernial canal that had been previously dilated by a reducible intestinal or omental hernia—the ovary taking the place of these structures, as was the condition in the case I am about to report.

The diagnosis of incarceration of the ovary is not generally made. (Only seven times in twenty: Englisch.)

Mrs. Y., forty years of age, robust, a German, the mother of six living children, has always enjoyed good health. Ten years ago, while straining or lifting, she felt "something give way," and soon noticed a soft tumor in her right groin. This she readily reduced by rubbing; but the tumor always returned when she worked hard. At the Woman's Medical College Hospital she was ordered a femoral truss, which, however, she only wore at long intervals, when the hernia troubled her most.

On October 15, 1890, after partaking of some improper food, she had a severe attack of vomiting, which was followed by pain in the right groin, and the discovery of a hard and painful tumor, which she was unable to reduce. She had not been wearing the truss just previously to this time. The pain soon subsided, and on the following day she went about her work as usual, and danced in the evening. On the following day I was called to see the patient for the first time, and found her uneasy and in pain. Upon examination I found a hard, sensitive tumor, about the size of a walnut, situated in the region of the femoral ring. It was slightly movable; the skin was not tender to the touch, nor did taxis, which failed to effect a reduction, cause much discomfort. I was at quite a loss to know with what I had to deal. The tumor felt like an inflamed lymphatic gland. The previous history, however, was suggestive of an omental hernia, but the entire absence of the characteristic symptoms of such a condition was puzzling. Having had the experience that absence of pain in strangulated hernia is a forerunner of a dangerous condition, I advised at least an exploratory operation; to which the patient readily assented.

On October 17th the parts were carefully shaved and cleansed. The patient was etherized. Having cautiously cut down through the various layers of tissue, I reached what was supposed by myself and other physicians present to be a thickened hernial sac. Upon opening it, to our great surprise it proved to be the broad ligament. I found neither intestine nor omentum, but a cystic ovary. When strong traction was made on the ovary, the right cornua of the uterus could be made to assume an oblique and antverted position, and the wound being enlarged, the fundus of the uterus could be felt by the index finger. This procedure finally corroborated the diagnosis of hernia of the ovary.

The ovary was found in the hernial sac without the Fallopian tube or its fimbriated extremity. The strangulation at the crural ring was so severe that the ovary and its pedicle (broad ligament) were deeply congested, their vitality being undoubtedly greatly impaired. Not willing to run any risk by reducing the organ in this

condition, the pedicle was transfixated and tied as in ordinary oophorectomy. Great care was exercised to prevent the entrance of blood into the abdominal cavity. The stump was thoroughly irrigated with boiled water, and dropped into the abdominal cavity. An assistant made a vaginal examination and found the uterus in its proper position.

The wound was united with two tiers of catgut sutures and left without drainage. The temperature did not rise above 99°, and the wound closed firmly under one dressing. At the conclusion of the operation it occurred to me that I had missed the opportunity of doing a unique operation for the radical cure of this patient's intestinal hernia. If the stump, which consisted entirely of the broad ligament, had been stitched to the ring and the deeper structures of the wound, it might have proved an excellent barrier to the descent of the gut. This procedure, however, would be open to severe criticism in case of a future pregnancy, and would, perhaps, be admissible only when both ovaries are removed, or if the menopause is close at hand. The patient remained in bed three weeks, when a suitable femoral truss was applied. She is now in excellent health, and is able to attend to her household duties.

#### *CYST OF PERITONEUM RESULTING FROM IMPACTED GALL-STONES; AUTOPSY.<sup>1</sup>*

By J. H. McCASEY, M.D., C.M.,  
OF CONCORDIA, KANSAS.

MISS R. S., fifty years old, a housemaid, presented a history of ague in childhood. Between the ages of seven and twelve years she had occasional attacks of jaundice. At sixteen she had an attack of typhoid fever lasting three weeks. As long as she can remember she has had pain in the right hypochondrium, so that "she could scarcely drag her right foot." Vomiting occurred with great readiness. She suffered with decided distention of the abdomen. Her life had been an active one, and she had been exposed to many hardships and privations.

Called to see her in June, 1890, I found the temperature 103°, the pulse 106, the abdomen tympanitic and extremely tender. I then diagnosed peritonitis, expressing a suspicion of the existence of an abdominal tumor, but owing to the tenderness I could not make the examination conclusive. The patient was confined to bed for about three weeks, but recovered without further mishap.

On June 26, 1891, I was again called to the patient. The temperature was 102°, the pulse increased in frequency. She was suffering with severe dragging pain in the right hypochondrium and freely vomited bilious matter. The abdomen was distended, and there was perceptible bulging, with flatness on percussion, just below the liver. I told the patient that there was likely a cystic tumor, and that I would return in a few days to aspirate and remove the fluid.

On July 1st, with the assistance of Dr. Coffey, I withdrew about two quarts of dense, blackish fluid.

About July 17th, with the assistance of Dr. Sawhill, I withdrew about three-fourths of a bucketful of the same kind of fluid mixed with pus. About a week later, I

again applied the aspirator, but failed to obtain any fluid. On August 11th, I succeeded in obtaining about three-fourths of a bucketful of pus. On August 16th, I introduced a trocar and canula, and permitted the canula to remain for five days, a continuous discharge of pus taking place. The woman died on August 27th.

At the autopsy, twelve hours after death, on opening the abdominal cavity in the mesial line, the peritoneum was found black and discolored. The gall-bladder was of medium size, and was filled with gall-stones—seven or eight in number, some as large as marbles. The small ones occupied the cystic duct. The liver was somewhat enlarged, but was otherwise quite healthy. Below the liver was a large cystic tumor, having a capacity of a gallon or more. Its inner walls were calcified. The sac was greatly thinned at several places. At the lower and posterior aspect a rupture had taken place.

With regard to cyst of the peritoneum, the *Reference Handbook* says that it is of so rare occurrence as not to claim mention in a work of that kind. Flint, Loomis, and all the text-books do not mention the subject at all, but refer to serous peritonitis, which most nearly resembles this case. But in this case we have a tumor-sac, and from the history of the case it would appear to have been in existence for twelve years. The inner wall of the sac had time to become calcified. I think all this establishes the diagnosis of cyst of the peritoneum and not chronic serous peritonitis, as might appear. The sac was badly decayed, and it was difficult to find its starting-point. But it seems probable to me that the gall-stones, or rather, hepatic colic, set up circumscribed peritonitis, which acted as a nucleus for the formation of the simple cyst of the peritoneum. Catarrh of the bile-duct or inflammation of the gall-bladder may often precede the formation of gall-stones and the mucus excreted serve as a nucleus for a gall-stone. An excess of the salts of lime or of bile-pigment or retention of bile may be exciting causes of biliary calculi.

#### *A CASE OF ACRANIA.*

By G. W. PIRTLE, M.D.,  
OF CARLISLE, INDIANA.

ON August 3d I was called to see Mrs. D., and found her in the first stage of labor. The bag of waters was protruding as a slender mass, like the fingers of a glove, an inch from the vulva. Upon very slight manipulation, it was ruptured during a pain that occurred just as I was attempting to make my first digital examination; a small quantity of amniotic fluid escaped. On completing my examination, I found a head engaging in the left oblique diameter, with the occiput anteriorly. By external manipulation I thought I could distinguish the presence of two bodies, but from the fact that the abdomen was greatly distended and tense I could not be positive. In a few minutes, an apparently healthy child was born, but it was very small, and died in about three hours.

Immediately after this child was born, there came a great gush of water, flooding everything completely, saturating the bed, and running through on the floor. After the first gush of fluid I made an examination and found an arm, with the hand slightly protruding from the vulva.

<sup>1</sup> Read before the Republican Valley Medical Society, October 1, 1891.

Upon passing my hand upward I was unable to find any round mass or anything that seemed to the touch like a head. But in the position where it seemed that the head should be (judging from the position of the presenting hand and arm) there was an irregular mass, different from anything that I had ever felt in obstetric practice. I was not a little perplexed, but decided to proceed at once on the orthodox plan and perform podalic version, which was accomplished without much difficulty, and the child was soon delivered. On examination a condition of acrania was found to exist. The absence of the brain was complete, the cord ending in a small bulbous extremity about five or six millimeters in diameter. The parietal and vertical portions of the frontal, and the posterior portion of the occipital bone were completely wanting. The squamous portion of the temporal bone seemed to be absent, and in its place was a round mass of bone. The anterior and middle fossæ of the skull were complete, but that portion of the cranium which is posterior to the foramen magnum was absent. Upon dissection I was unable to find positively the intra-cranial portions of any of the cranial nerves, although near the apex of the petrous portion of the temporal bone there was a mass of tissue that corresponded both in position and appearance to the Gasserian ganglion. The optic nerve terminated in a bulbous mass just at the internal opening of the optic foramen. The eyes were well developed and very prominent, giving the specimen the remarkable frog-like appearance so often spoken of in descriptions of acrania. The rest of the body was well developed, but small. When born, the heart was beating regularly, but its action soon became intermittent, though I was able to keep up a feeble pulsation by artificial respiration for several minutes. There was no attempt at respiration. In fact, the only movement perceptible was a slight tremor in the muscles of the lower limbs, which occurred when the bulbous extremity of the cord was touched.

This case is interesting for three reasons: First, it was a case of polyhydramnios; second, the presentation was abnormal; third, the fetus was a monstrosity.

Acrania is, perhaps, the most common of all important and striking monstrosities. The perplexity it gives the physician makes the subject of more importance than any impediment that it might cause in labor. One who has never attended a case in which the fetus has presented a condition of acrania cannot help feeling somewhat perplexed when, upon examination, the finger comes in contact with the floor of the skull of an acranial monster. In the case reported the presentation was one in which, had the fetus been perfect, version would have been required; but, from the fact that the head was incomplete, I am confident that it would have been delivered naturally; not feeling fully satisfied, however, I was unwilling to allow the child to become impacted in the passages.

*The Corpsecle* is the name of a twenty-four page journal published monthly by a board of editors constituted of undergraduates chosen from the classes of Rush Medical College, Chicago, by election. Number seven of volume one bears date of February 20, 1892, and does credit alike to editors, students, and faculty.

#### CASE OF INTUSSUSCEPTION IN AN INFANT.

BY D. E. RUFF, M.D.,  
OF JUNCTION CITY, OREGON.

In a medical experience of twenty-five years, I have never met a case of this kind in as young a patient as the one with the following history: On October 29, 1891, at 5 P.M., my child, a male, then seventeen days old, began crying severely. The mother gave some simple remedy for colic at the time, but this failed to give any permanent relief. At 6 P.M. a small dose of castor oil was given, as it had been frequently used with good results in the case of an older child. For a short time after taking the oil it stopped crying and began to strain or bear down, and moan, crying only occasionally and for a short time. At 10 P.M. it commenced to vomit and hiccough very severely; suspecting then something more than colic to be the trouble, I examined the bowels thoroughly and discovered a kidney shaped tumor on the right side, slightly tender and movable. Recognizing at once that I had a case of intussusception to deal with, I immediately gave an injection of lukewarm water, holding the child partly inverted. After five minutes' retention, the contents of the lower bowel were passed. I then held the child up by the shoulders and pumped air into the bowel, until the belly became quite tense, and used light friction over the bowels. I alternated the injections of water and air until midnight. I then gave chloroform, until the child was thoroughly relaxed, and used external manipulation over the tumor, pressing downward at each extremity and pulling the hands apart. In this manner I partially reduced the invagination to three inches, which at first was about five inches in extent. After emptying the lower bowel with the water first injected, there had been no movement of the bowels, and the later injections brought away only flecks of mucus.

At 2 A.M., the 30th, I gave a dose of morphine, so small that it would be difficult to tell how much. I had no hopes of his recovery. His features had now become pinched and drawn, and I gave the hypnotic to ease him of his sufferings, which were severe and very acute.

I still continued the alternate injections of water and air. At 9 A.M. he became more cadaveric in appearance, and he had every appearance of dying. As we had a good open fireplace, I had no trouble in keeping him warm, except the hands, which would get cold when exposed for only a few minutes. At 11 A.M. the bowels were moved, the action being of a very dark green color, with scattered flecks of undigested milk. His appearance now improved; he did not look so death-like. He was fully under influence of the opiate at this time. No change was noticed in his features or condition until 3 P.M., when he gave a severe and sudden start or jump, straightened out his legs for an instant, and then relapsed into a seemingly more natural sleep, the features clearing up, and the breathing becoming easy and soft. Examining the bowels now, I found the intussusception had become reduced.

In all the literature at my command, I cannot find a case like this, at as young an age, and I give a full history of the case. The child, at birth, weighed six pounds, and previous to this trouble the bowels had been too loose, moving eight or ten times in twenty-four

hours, with flakes of tough, stringy mucus and undigested milk, and occasionally the actions were of a dark-green color. At this date the child weighs thirteen pounds net, and is plump and hearty, and will laugh and crow when noticed; the bowels are in good condition, and the milk fully digested. He has never been fed artificially.

#### SEVERE "COMMON COLD" DUE TO REFLEXES FROM THE EYE.

BY GEORGE M. GOULD, M.D.,  
OPHTHALMOLOGIST TO THE PHILADELPHIA HOSPITAL.

ILLUSTRATIONS of neurotic reflexes proceeding from nasal and naso-pharyngeal abnormalities are common, but instances of reflexes from the eyes to the nose, etc., are so rare that the following striking case should be known to others.

The vexing peculiarity about all such phenomena is that they may be taking place every day unrecognized by physician or patient. Had my patient and his family not been people of exceptional intelligence, the facts I am about to relate would not have been discovered.

Mr. W. H. P., forty-six years of age, a fine type of the clear-headed, well-educated, successful business man, consulted me May 10, 1890. His only complaint was of slight asthenopic trouble in near work. He had long known that he was near-sighted, but he did not care for better distant vision.

With paralyzed accommodation I found his error of refraction to be:

R. — sph. 2.25 D.  $\odot$  — cyl. 0.75 D. ax. 140°.

L. — sph. 4.00 D.  $\odot$  — cyl. 1.50 D. ax. 65°.

There was also exophoria of 6°.

It was with much difficulty that I prevailed upon him to wear for continuous use:

R. — sph. 0.75 D.  $\odot$  — cyl. 0.75 D. ax. 140°.

L. — sph. 2.00 D.  $\odot$  — cyl. 1.50 D. ax. 65°.

with prisms  $2\frac{1}{2}^{\circ}$  each eye base in.

He very soon came to like the glasses and wore them all the time. He would not get stronger glasses for distant use.

I heard nothing more from Mr. P. until the following spring, March 29, 1891, when his wife told me of her husband's excellent health, and that the past winter he had been free from the usual severe "cold," with which he had suffered every year the entire winter through for eighteen years. At this time none of us suspected the ocular origin of the "cold."

On April 3, 1891, I got my patient to order a pair of stronger lenses, correcting his myopia. In a week he "caught a wretched cold"—as he said, "in a sleeping-car." It was afterward learned that the day he caught the cold was the first day he had worn his stronger lenses.

On July 22d, he returned displeased with the stronger glasses. He had discovered that every time he wore them for an hour he at once had his old-time trouble of the nose and throat, consisting in great coryza, pharyngeal and laryngeal congestion, changed timbre of voice, etc. These symptoms always disappeared in a few hours upon a change to the weaker lenses. This fact he has since proved many times. If he goes to the theater or other public meeting, he frequently wears the

stronger spectacles for an hour or two, for the satisfaction of more perfect distant vision. He invariably contracts the cold in so doing.

Not only this, but he has several times met with slight accidents to his weaker spectacles, so that becoming maladjusted, the axis of astigmatism was thereby improperly rotated. In such cases the cold reappears. Indeed, so routine has the phenomenon become that he now suspects maladjustment of the spectacle-frame whenever he begins feeling any nasal irritation. After a trip to the optician and a proper setting of the lenses, his cold disappears within about two hours.

Several lessons seem suggested by this case—to the general physician and rhinologist as regards the possible extra-nasal origin of nasal and pharyngeal trouble; to the oculist as to the remote effects of ocular strain, and also as to full correction of myopia; and to the patient and optician as to the maladjustment of astigmatic lenses.

#### MEDICAL PROGRESS.

*The Urinary Ptomaines of Exophthalmic Goiter.*—BOINET and SILBERT (*Revue de Médecine*, No. 1, 1892, p. 33) have succeeded in isolating from the urine of a patient with exophthalmic goiter, three ptomaines, inducing in animals symptoms analogous to those observed clinically. If extracted by an alkaline medium the ptomaines are designated  $\alpha$  ptomaines; if extracted by an acid medium,  $\beta$ -ptomaines. Each of these, according to its solubility, is named ethereal, amylic, or benzenic. The crude active principle obtained by evaporating the urine has a convulsant action. The amylic  $\alpha$ -ptomaine causes slowing of the heart, enfeeblement of the systole, arrhythmia, prolongation of the diastole, and arrest of the heart in diastole. The benzenic  $\alpha$ -ptomaine gives rise to passing diminution in the energy of the systole, then to transitory increase in the systolic amplitude; subsequently there follows an enfeeblement of the systole and an augmentation of the diastole. The ethereal  $\alpha$ -ptomaine produces a slowing of the heart's beat, with a diminution in the energy of the systole, followed by an acceleration of the heart's beat, with an increase in the systolic amplitude, and finally cardiac spasm; the heart is arrested in systole. The amylic  $\beta$ -ptomaine gives rise to passing augmentation of the energy of the systole, followed by enfeeblement of the heart's beat and arrhythmia; the heart is arrested in diastole, from paralysis of the muscular fiber. The amylic  $\beta$ -ptomaine causes slight depression of temperature, followed by elevation. The ethereal  $\beta$ -ptomaine increases the amplitude of the systole and causes muscular resolution.

*Two Cases of Abscess in the Region of the Medulla Oblongata.*—EISENLOHR (*Deutsche med. Wochenschrift*, No. 6, 1892, p. 111) has reported two interesting cases of abscess in the region of the medulla oblongata. The one occurred in a man, forty-three years old, with bronchiectasis and empyema. One arm and one leg first became paralytic and anesthetic, and then the extremities of the opposite side. The reactions of the left pupil were deranged. The patient died in marked dyspnea. At the autopsy, an abscess, as large as a pea, was found in the medulla oblongata, beneath the floor of the fourth

ventricle, extending by a prolongation into the cord and involving the posterior roots and gray matter as far as the second cervical root. The second case occurred in a man, twenty-five years old, in the course of an attack of cerebro-spinal meningitis. The reactions of the pupil were deranged; there were general cutaneous hyperalgesia and unilateral facial paresis; consciousness was impaired; severe epileptiform convulsions set in; and death ensued. At the autopsy, in addition to the lesions of cerebro-spinal meningitis, a minute abscess was found at the level of the corpora quadrigemina, close to the aqueduct.

*A Bullet in the Brain for Twenty-nine Years.*—CONNIFF (*Vitis Medicatrix*, i, 5, 1892, p. 279) has reported the case of a man, sixty-three years of age, whom he was called to treat in an attack of enteritis. There was, besides, a history of pain in the head and an inability to lie on the right side. Inquiry elicited the fact that twenty-nine years previously the man had received a gunshot wound at the left angle of the mouth, the bullet, it was supposed, entering the brain. The patient maintained that upon rotating his head he could feel the missile just back of the left ear. \* He had suffered almost constant headache, at times most intense and attended with vertigo. Hearing was lost on the right side. Vision was impaired on the left. The patient died, and at the autopsy, in addition to the lesions of a plastic enteritis, a bullet was found imbedded in the occipital lobe of the left cerebral hemisphere, behind the posterior cornu of the lateral ventricle. The bullet had entered near the left angle of the mouth, passing beneath the malar bone and entering the cranium through the left orbital cavity close to the optic nerve; thence it had passed toward the left lateral sinus.

*An Immunity-conferring Principle in the Blood of Animals Treated with Tuberculin.*—Having observed some degree of immunity in tuberculous guinea-pigs treated with tuberculin, TIZZONI and CENTANNI (*Centralbl. f. Bakteriol. u. Parasitenk.*, xi, 3 u. 4, p. 82) preceded injections of suspensions of tubercle-bacilli into the jugular vein by the introduction of the serum of the blood of such animals into the peritoneal cavity. Of ten animals thus treated, five died. All presented local lesions at the site of inoculation. In the fatal cases death was deferred and the visceral lesions were less extensive than usual. The view is expressed that tuberculin is, or the soluble products of the tubercle-bacillus are, capable of conferring a certain degree of immunity dependent upon the presence of an active agent in the blood, and that the good effects of tuberculin do not result from a direct action, but are dependent upon the generation in the body of some protective principle, which it is hoped future investigations will succeed in isolating.

*Enteric Fever in an Infant Nine Months Old.*—FULLER (*Lancet*, No. 3558, p. 1038) has recorded the fatal case of an infant, nine months old, that presented manifestations of irritability and dulness, with diarrhea, tympanites, and elevation of temperature. At the autopsy, though the spleen was not enlarged, Peyer's patches were found swollen above the surface of the mucous membrane, some of the lower ones beginning to ulcerate. The

adjacent intestine was injected. The mesenteric glands were enlarged and the solitary glands of the cecum were abnormally prominent. In the same house in which the infant lived, an older child of eighteen months, as well as a woman, presented symptoms similar to those of the infant.

*Filariosis.*—MOTY (*Revue de Chirurgie*, No. 1, 1892, p. 1) reports six cases of filariosis observed at Val-de-Grâce. The most common manifestation was dilatation of the lymphatics of the groin and spermatic cord, dependent upon the irritation of the filariae or their embryo. The diagnosis may be made upon the clinical manifestations, but is to be confirmed by the detection of the embryos in the blood. Internal treatment is useless. Palliative external treatment is not to be recommended. If the manifestations are decided, surgical intervention, with the removal of the parts most involved, is indicated. It may thus be possible to remove the adult filaria.

*A Hitherto Undescribed Anomaly in the Mechanism of Labors in Face Presentation.*—HIRST (*University Medical Magazine*, iv, 5, 1892, p. 341) has reported a case of labor terminating fatally, in which the face presented, the mechanism being complicated by a hitherto undescribed anomaly. The abdomen of the child was turned slightly toward the right, the back to the left, anteriorly. The face was transverse, the chin directed slightly posteriorly. The occiput and the right shoulder were in close apposition. Descent of the head was impossible, while extension was prevented by the position of the right shoulder.

*Atrophy of the Maxillary Bones in Posterior Spinal Sclerosis.*—According to ROSIN (*Deutsche Zeitschr. f. Nervenheilk.*, 1891) it is not rare in the course of posterior spinal sclerosis, not only for the teeth to fall out, but also for atrophy of the alveolar margin to take place, either by absorption or by sequestration. The inferior maxilla is less frequently affected than the superior maxilla. The mucous membrane in the atrophic areas is anesthetic. These associated manifestations may occur early or late in the course of the disease.—*Journal de Médecine de Bordeaux*, No. 5, 1892, p. 63.

*Toxic Effects of Impure Chloroform.*—As a result of experiments on animals conducted in the Pharmacologic Laboratory of the University of Berlin, DU BOIS REYMOND (*British Medical Journal*, No. 1622, p. 209) has found that the toxic effects of chloroform are greatly increased by the presence of impurities. By the method of Pictet, of crystallizing chloroform by intense cold, it was possible to separate the pure drug from impurities. The latter occasioned greater frequency of pulse, greater depression of blood-pressure, and cessation of respiration more quickly than did the former.

*The Temperature in Old Age.*—As a result of continuous observations made under uniform conditions of health, in the cases of three persons, aged eighty-two, eighty-three, and eighty-nine years respectively, KELYNACK (*Medical Chronicle*, xv, 5, p. 289) has found that the temperature, as registered in both rectum and axilla, is

distinctly below that of healthy children and adults. The rectal temperature was from one-fifth to one degree higher than the axillary temperature.

## THERAPEUTIC NOTES.

### For Fétid Breath.—

R.—Thymol . . . . .	3j.
Borax . . . . .	3ij.
Alcohol . . . . .	f 3ij.
Distilled water . . . . .	f 3ijss.—M.

S.—Use several times a day as a gargle.

Or,

R.—Salicylic acid . . . . .	{ aa gr. xvj.
Saccharin . . . . .	
Sodium bicarbonate . . . . .	

Alcohol . . . . . f 3j.—M.

S.—f 3 in water, as a gargle, several times daily.

*Journal de Méd. de Paris.*

**Palatable Castor Oil.**—As the result of a series of experiments, STAADKE (*Deutsche medicin. Wochenschr.*, 1892, No. 4, p. 87) believes that he has succeeded in removing the nauseous taste of castor oil. The best castor oil is repeatedly treated with hot water, then sweetened with sufficient saccharin to possess a syrupy taste. Minute quantities of the aldehyde of cinnamon oil and of vanilla flavoring suffice to completely cover whatever disagreeableness of taste remains. Oil so prepared has been found to be as efficacious and as permanent as the ordinary oil.

### For Coryza.—

R.—Cocaine hydrochlorate . . . . .	gr. ix.
Menthол . . . . .	gr. xv.
Coffee, parched and finely pulverized . . . . .	gr. xxx.
Boric acid . . . . .	3ij.—M.

S.—Take five or six good pinches, as a snuff, a half-dozen times daily.

*COUPARD, Monde Therapeutique.*

**Treatment of Hiccough by Compression of the Phrenic Nerve.**—At a meeting of the Académie des Sciences, LELOIR (*Journal de Médecine de Bordeaux*, 1892, No. 5, p. 59) reported the successful treatment of a considerable number of cases of otherwise incoercible hiccough, by means of digital compression of the phrenic nerve, for from a few seconds to a few minutes, between the two clavicular attachments of the sterno-cleido-mastoid muscle.

### For Chronic Rheumatism.—

R.—Sodii iodidi . . . . .	3ij.
Sodii bicarbonatis . . . . .	3iv.
Potassii bicarbonatis . . . . .	3j.
Liquor. potassii arsenitis . . . . .	f 3jss.
Decoc. sarsaparillæ comp. ad f 3xx.—M.	

S.—A tablespoonful in considerable water three times a day after meals. WHITLA.

**For Acne.**—The following formula is recommended for internal administration in cases of acne associated with anemia:

R.—Ferri sulphat . . . . .	gr. xxiv.
Acid. sulphuric. dilut. . . . .	f 3j.
Magnesii sulph. . . . .	3iv.
Sodii sulph. . . . .	3iv.
Aqua menth. pip. . . . .	ad f 3xj.—M.

S.—Two tablespoonfuls before meals. WHITLA.

**For Psoriasis of the Scalp.**—The following ointment may be employed in psoriasis of the scalp if the disease be limited and there be no irritation.

R.—Salicylic acid } . . . . .	aa gr. xxiv
Pyrogallic acid } . . . . .	
Ichthyl . . . . .	gr. xlviij.
Soft potash soap } . . . . .	aa 3j.—M.
Vaseline . . . . .	

S.—Apply cautiously on alternate days with gentle friction.

BESNIER, *Revue Gén. de Clin. et de Thérap.*, 6, p. 89.

**For Moist and Painful Leg Ulcers.**—The following has been successfully employed as a topical application in the treatment of moist and painful ulcers of the leg:

R.—Acid. salicylic. . . . .	3ij.
Acid. boric. . . . .	gr. lxxij.
Zinci oxid. . . . .	gr. xlviij.
Amyli } . . . . .	aa 3j.—M.
Pulv. talc. } . . . .	

WEISMÜLLER.

**A Deodorant.**—When, in case of carcinoma of the uterus, a deodorant is required, the following combination will prove useful:

R.—Acid. salicylic. . . . .	gr. viij.
Sodii salicylat. . . . .	3ij.
Tinct. eucalypti . . . . .	f 3vj.
Aqua destillat. . . . .	f 3vj.—M.

S.—Three tablespoonfuls are added to a pint or two pints of water, and used as a douche every three or four hours.

WHITLA.

**Gall-stones.**—In an interesting paper on gall-stones, GOODHART (*British Medical Journal*, No. 1622, p. 219) expresses the view that in many cases the formation of such calculi appears to be related to some mental strain or to a neurotic condition. He has seen beneficial results follow the administration of olive oil. For the itching of the skin that attends the jaundice he recommends pilocarpine, by the mouth or hypodermatically.

**Treatment of Goiter.**—AUERBACH (*Deutsche medicin. Wochenschr.*, 1892, No. 3, p. 60) recommends interstitial injections of osmic acid in the treatment of goiter. One-twelfth of a grain, in solution, is injected daily into the tumor, followed by a massage for fifteen minutes, while potassium iodide is given internally.

**A Deodorant for Iodoform.**—The ethereal oil of coriander is recommended as a deodorant for iodoform. It is directed that eight drops of the oil be thoroughly incorporated with a dram of iodoform.

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SATURDAY, MARCH 12, 1892.

**RECENT PROGRESS IN THE STUDY OF  
THE BLOOD.**

ADVANCES in the medical sciences are so rapid and publications so numerous that occasional "stock-taking" becomes a necessity, lest the facts acquired be engulfed and hidden in the very mass of contributions that gave them forth. A review of recent progress in the knowledge of the diseases of the blood is at once a profitable and pleasant work, for in few branches of medicine will we find advances so far-reaching in the results already attained, so promising for the future.

Someone has said that we owe as much to the maker of instruments of precision as to ourselves for the advances in modern science, and assuredly there is more than a grain of truth in this. Without the hemocytometer, the hemoglobinometer, and the microscope we should still remain in ignorance of many well-established principles, valuable in diagnosis and still more so in treatment. Without these aids we might find consolation in the words of a prominent therapeutist, who says: "How interesting to be able to count the corpuscles and measure the hemoglobin, but I see by the skin that this is anemia, and my studies teach me that iron cures anemia." Doubtless it is true that we may diag-

nosticate anemia by the appearance of the skin, but aside from any thought of the fact, so well stated by SANSON, that "no disease is well treated that is misunderstood," practical experience and scientific investigation have demonstrated that there are cases of anemia and anemia, often distinguishable, not by the hue of skin or the clinical history, but by the careful study of the blood, and by this alone.

It has been sufficiently established that there are three classes of anemia readily distinguishable by the condition of the blood: first, simple anemia, in which the hemoglobin and the number of red corpuscles are correspondingly diminished; second, chlorosis, in which the hemoglobin is lessened far out of proportion to the diminution in the number of the red corpuscles; and, third, pernicious anemia, with its proportionately overwhelming decrease of red corpuscles and the relatively increased richness in hemoglobin of the individual corpuscle. These may be taken as types, to one or the other of which all the various forms of secondary anemias may be referred; and if future observation fails to confirm our present views (LAACHE) that iron is of especial value when the chlorotic character is assumed, and arsenic when the blood is especially poor in the number of its corpuscles, it has been proved beyond dispute that the examination of the blood for the determination of the type to which a case of anemia belongs is of the utmost service in establishing the diagnosis, and therefore the prognosis and treatment.

It is to the point to cite cases, such as those reported by MOUSET, of Lyons (THE MEDICAL NEWS, February 13, 1892), cases of carcinoma of the stomach, in which the constantly increasing cachexia assumes the aspect of pernicious anemia, but in which the blood is of decidedly chlorotic character. We recall the case of an old man with most profound anemia, with increasing weakness, and pallor and slight fever at times, but without palpable tumor of the epigastric region, and without vomiting except from indiscretion in diet—in short, a picture of pernicious anemia, and yet, by discovering a chlorotic condition of the blood, or at least a condition not approaching pernicious anemia, we were enabled to diagnosticate malignant disease, and autopsy confirmed the diagnosis. So, too, there are occasional cases of tuberculosis, of malaria, of chlorosis, and other diseases—not a few of them curable—in which the outward manifestations mimic

this grave blood-disease, and which are distinguishable from it only by examination of the blood itself. What, then, are we to say of him who sets aside such valuable aids for diagnosis, and tells us it is possible to see by the pallor that there is anemia?

Another great group of cases to which attention must be directed, and the study of which has received renewed impetus of late, are those in which the leukocyte plays an important rôle. Since 1846, when VIRCHOW first recognized leukemia as a blood-disease and set aside the faulty notions of the older pathologists about "suppuration of the blood" and "hemitis," observations have been steadily accumulating, but none compares in importance with those of EHRLICH on the nature of the white corpuscles in health and disease. In pointing out that our old conception of leukocytes as simple masses of protoplasm, with ameboid motions, was not comprehensive enough, and that there are various kinds of leukocytes widely different in nature and origin, and in offering a ready means of distinguishing these, EHRLICH has contributed knowledge that has already yielded rich results and that will accomplish much more. It would be far from the present purpose to review the work of EHRLICH, even briefly, but we may state that by peculiar methods of staining he has succeeded in establishing five varieties of leukocytes in normal blood and in determining their relative proportions, and that he has found in the blood of leukemia a greatly increased number of one of these forms, and besides, a form such as is never found in conditions of health (myelocytes).

Such being the case, it will be readily seen that, aside from the high scientific value of the observations themselves, that he has placed in our hands the means of distinguishing the various forms of leukocytosis from the cases of true leukemia, since in the former the corpuscles present to a great degree the normal characteristics and relations. We would direct attention in particular to the varied forms of disease in children, so well detailed by LUZET,<sup>1</sup> in which, besides enlargement of the spleen, there is also more or less marked leukocytosis. Among these may be named congenital syphilis, rickets, and that peculiar form of disease described by JAKSCH as infantile pseudo-leukemia — all resembling true leukemia, but distinguishable, as LUZET and also BAGINSKI<sup>2</sup> have shown, by the color-tests of EHRLICH. The resemblance of these diseases,

and sometimes other diseases of childhood as well, to leukemia, while usually not so close as to require special means of diagnosis, at times becomes so marked that the character of the leukocytes, as determined by EHRLICH's methods, alone serves to make the diagnosis. So, too, in cases of chronic malaria in adults, the enlarged spleen, the progressive anemia, and weakness, together with marked leukocytosis, present a complex of symptoms scarcely to be distinguished from leukemia, except by the character of the leukocytes. The practical utility of these methods could receive no better illustration than the case of TOULMIN and THAYER,<sup>1</sup> one of leukemia, in which, under treatment, the spleen diminished in size, the general symptoms abated, and the excess of leukocytes disappeared. In such a case it would be impossible to diagnosticate leukemia, except that, as was actually found, there still remained myelocytes and the proportions of the different forms characteristic of the disease. Subsequent relapse, with reappearance of the symptoms, confirmed the diagnosis. The value of these investigations cannot at the present time be rightly estimated, for we have yet much to learn of the extent to which they are applicable, but the few examples cited are sufficient to indicate the immense importance of continued study in this branch of pathology.

Still another line of research demands notice—the study of microorganisms and foreign elements in the blood. It is noticeable how little bacteriology has accomplished in this direction, for though many microorganisms have been found in the blood, there are few the detection of which serves any practical purposes; of these we may mention the malarial organism, the spirocheta of relapsing fever, and the bacillus of anthrax. Whatever the future may determine as to the nature of the malarial organism, or its exact relation to the disease as a cause, there can no longer be any dispute as to its value for diagnosis. We may call attention to the recent paper of DOCK<sup>2</sup> in connection with this subject. Examination of the blood for anthrax-bacilli may be of great interest in cases of intestinal anthrax consequent upon meat-infection, and may be the means of establishing the diagnosis.

In thus reviewing some of the practical points in the recent advances in the study of the blood, we hope that it is clear that a more general adoption of

<sup>1</sup> Rev. des Mal. de l'Enfance, May 2, 1891.

<sup>2</sup> Arch. für Kinderheilk., 1891, Bd. xiii, 1, 4, 5, 6.

<sup>1</sup> Johns Hopkins Hospital Bulletin, May-June, 1891.

<sup>2</sup> THE MEDICAL NEWS, May 30, 1891.

these means of investigating disease has become a necessity. We are well aware of the obstacles in the way of the introduction of such methods in private practice, but even in our hospitals they have been neglected, and here the scientific value of such work alone should have been sufficient to secure its introduction.

We might enlarge greatly, and extend our remarks to the researches into the nature and cause of the blood-diseases, chlorosis and pernicious anemia in particular, or to the studies of the physiology of the blood-making organs, stimulated by the new methods of investigation furnished by EHRLICH, or the promising questions of antagonism between the fluids of the blood and microorganisms, but the purpose here has been to direct attention only to the practical side of these questions, and to urge a more general practice of methods of study that must prove of the greatest value.

#### *CONCEALED GOUT.*

OUR last issue contained an interesting and valuable paper on "Obscure Forms of Gout," that had been read before the College of Physicians by DR. DULLES. In the discussion elicited by this paper, it was truthfully said that the author had not done full justice to the knowledge and diagnostic acumen of his colleagues. Certainly, no such widespread ignorance of the subject prevails in Philadelphia as one might infer from the language used by DR. DULLES. Nor do we believe that such ignorance prevails anywhere in the United States where the Alumni of Jefferson Medical College have gone. In each year of the more than twenty years that PROFESSOR DA COSTA has taught at Jefferson, he has called frequent attention to the subject in his didactic and clinical lectures; and it would be simply impossible for any considerable proportion of his pupils to be uninformed concerning it, even if they had never looked into a book or read a journal. The occurrence of "half-gout," "American gout," or "lithemia," has thus become a matter of common knowledge, and has yearly been handed down to new classes by teachers that he has taught. Doubtless, other colleges and other chairs might be similarly cited, but we are simply offering personal testimony, not hearsay. The small number of papers by Americans to which DR. DULLES refers, may be accounted for on a more flattering hypothesis than that of ignorance. The earlier authors

treated the subject so thoroughly, and made it so familiar, that they left little for competent successors to add, and made unfamiliarity with the facts among the profession at large impossible.

DR. DULLES's paper, apart from the point criticised at the meeting and in these lines, is a good and timely one, and will no doubt assist in the better diffusion of the knowledge of an important subject.

#### *PROTEST AT ONCE.*

THE NEWS has no interest in politics, and for that reason feels free to protest when politics injures medicine. Our indignation is stirred by the fact that under the provisions of the Army Appropriation Bill, reported by the Military Committee to the House of Representatives, the usual annual appropriation for the Library of the Surgeon-General's office, U. S. Army, is cut down one-half—that is, it is reduced from ten thousand to five thousand dollars. If this is not changed, either in the House or in the Senate, the result must be that the formation of a complete medical library at Washington, which has been going on so successfully for the last ten years, must be stopped—that all the new medical books and journals can no longer be purchased—to say nothing of the prevention of purchases of valuable works still required to make the collection what it should be—an absolutely complete reference medical library for the use of the United States.

When a member of Congress dies, "a junketing tour" with Pullman cars, etc., costing us thousands of dollars, is made to appear as a part of the funeral honors, and expenses. Every year every representative votes himself, his family, his friends, his clerks, and his pages high-priced pocket-books, ink-stands, knives, etc.; quinine, drugs, and all manner of "druggists' sundries"; soaps, puff-balls, cologne, silver hair-brushes, and every sort of toilet article imaginable—an infinitude of expensive trash, the total amounting to nobody knows how many thousands of dollars.

Then he would cripple medical science, education, and progress by reducing the already too small appropriation for the National Medical Library!

Every reader of THE NEWS, every physician of the United States, should immediately write his representative at Washington protesting most earnestly against such an outrage.

## SELECTION.

### A PLEA FOR HOME INDUSTRY FROM A MEDICAL POINT OF VIEW.<sup>1</sup>

A FEW days ago I had a strange dream, and since then I do not find any peace of mind. The question of protection, free trade, home industry, etc., haunt me by day and night. After you have heard the story of my nightmare you will understand why I presume to talk politics in a medical society.

I dreamed that I was sitting in the gallery of the House of Representatives. Hon. Nulite, a Representative of the recently annexed State of —, introduced the following bill:

WHEREAS, Graduates from our regular and lawfully incorporated medical schools, citizens of the United States of America, have fallen of late into the bad habit of leaving their motherland, travelling into strange countries, and thus depriving our country for a certain period of time of their services as useful citizens in their respective avocations; and,

WHEREAS, The number of said birds of passage has increased in a geometric ratio, and from information gathered through our European consulates it appears that the number of said unpatriotic sons had, in 1891, reached the alarming number of 2000 souls, and allowing the expenses of each of them to be \$1000 per annum, a simple multiplication will reveal to us that our National wealth is decreased by the colossal sum of two million dollars yearly; and, further,

WHEREAS, From personal interviews with many of said M.D.'s, I have learned that the motive for this, their strange behavior, is none other than the supposed imperfect and unsatisfactory method of teaching now prevalent in the medical schools of our country, and that they look upon themselves as upon so much *raw material* exported annually; therefore, in order to rectify this crying evil, to prevent our citizens from running away, and our National wealth from being exhausted, and to protect our home medical industry,

BE IT RESOLVED, Such M.D.'s should be entered upon the tariff list under the appropriate article, and be obliged to pay duty into the Custom-house of the United States in the sum of \$1000 for each and every year of absence, or any part thereof. This fund shall be known as "Duty on those wanting to know too much," and said fund is to be divided, share and share alike, among those loyal subjects and faithful citizens who, having once got their medical degree, do not bother their heads about perfection, who are patriotic enough to stay where they are, prescribing ointments and powders, pills and capsules—in short, performing their duty to God and their fellowmen to the best of their knowledge.

Having finished reading the above remarkable document the Representative looked triumphantly upon his fellow law-makers.

"Protection"—continued the Representative—but this word fell like a blow upon my head, and I awoke. For quite a while I was stunned. What, thought I, I will have to pay \$1000 when I go back? Heavens!

<sup>1</sup> Selections from a paper read by Dr. Charles D. Spivak before the American Medical Society of Berlin, in the auditorium of the Königliche Zahnärztliche Akademie, February 4, 1892.

Whenever I think of that dream and my imaginary Representative, I cannot help finding in his words some grains of truth. The more I ponder over the "Whereases," the less ridiculous does his patriotism appear to my mind. The absurdity lies in the mode of solving the question—in his protective aspirations. Otherwise he is quite a sane man.

I have found that the American medical students in Europe can be divided into three groups: The first constitutes an insignificant minority. It is made up of those that go to Europe for the sake of the name alone. They roam all over Europe, they visit all the universities and café chantants, they know all the names of the celebrities and of the bacilli, and they pronounce "prosit" in a pure German-kneipe way.

The second group is composed of elderly medical men—physicians who have been in practice several years. They came here either to refresh their memory, or to take a course in some special branch. Among them are a few who aspire to a professorship in some college. They are serious men, and know what they want.

The third group, the bulk of the American students, is composed of those who have just graduated. They have not had any experience, they do not aspire to professorships, they do not want anything especial—only the earth—of medical knowledge!

But what is there amiss at home that we are obliged to come to Europe? What is wanting there? Teachers? Not at all. Da Costa is as great as Gerhard, Price operates as well as Gusserow, Keen is as keen and daring as Bergmann, Pepper knows diseases of children as well as Henoch, and Weir Mitchell is not below Mendel. These are famous men of only one city—Philadelphia. Their number would reach hundreds if we would enumerate the great men of New York, Chicago, Cincinnati, Baltimore, etc. We may not have produced a Virchow, Koch, DuBois Reymond, etc. But Virchow does not give birth every nine months to a cellular theory, Koch is not pregnant all the time with new bacilli, and DuBois Reymond does not make a new discovery every day. All that they have discovered they have not patented—he who wants to know may learn it gratis. All that which we hear in the Berlin clinics we might as well have heard staying at home, and in a language more musical and comprehensible.

Wherein, then, doth the secret lie? I know that you divine what I am going to say: We have plenty of didactic lectures and very little of practical clinical work.

We boast of being an eminently practical people. "Let us see!" "Let us try!" "Prove it!"—are always on our lips. Medicine alone is our weak point; there we are all theory.

There are as many sick people in New York as in Berlin. There are in New York as many and as good hospitals as in Berlin. Why not deliver the same lectures at the bedside of the sick? Our children in the kindergartens are taught by the object method. Show us the sick man you talk about, and we will stay at home, otherwise we will go to Europe to see him. Build a pathological institute, and then talk of yellow liver atrophy; otherwise we will have to go to Europe for a

specimen. Erect a bacteriological institute, and we may believe that there are such vibrioic devils in existence. In Europe we see and cultivate them.

If anybody thinks that we need a Virchow to instruct us in pathology, he is mistaken. It is not the great men who instruct us here—you know this well—it is their assistants. And I can assure you that there are men in my own city who know as much pathology and bacteriology as the assistants of Virchow and Koch. They have no opportunity to apply their knowledge.

True, the recent inauguration of graded courses in all the respectable medical colleges, the splendid pathological institute in New York, the Johns Hopkins University—the future medical Mecca of the United States—show the dawn of a new era. But the progress is very slow. Conservatism is a noxious weed, difficult to root out. Look at our professors. They make flying trips to Europe almost every year. They see everything and everybody. They take back with them catgut, a new pessary, a pair of delivery forceps, a good-for-nothing obstetrical table; they tell us about the celebrities they have met, and they continue year in and year out their routine ways of instruction!

Before I close my paper let me appeal to you, gentlemen, that when you return home safely, well laden with practical knowledge, you should raise your voice in behalf of a new era of teaching. Some of you will rise in the profession, others will hold exalted positions, social or governmental, and a few will occupy chairs in colleges. For the sake of our profession do not forget the real motives of your visit to Europe. Do not compel your own pupils to seek for *practical* knowledge in some foreign land. Let the student be permeated with the atmosphere of the hospital and the laboratory. The ideal student of the future, in my opinion, will have to serve his apprenticeship as a nurse. The preceptorship of days gone by was better than many of the modern American medical schools.

Dr. Edward P. Davis, the editor of the *American Journal of the Medical Sciences*, writes to me:

"I quite agree with you in the contrast of methods of instruction in Europe and America; I think that the differences in government have much to do with it, as such institutes as you describe are subsidized in Europe by the Government, and can be supported in a way which is impossible in America."

Notwithstanding my personal dislike to any paternal Government, and my firm belief in the wisdom of keeping science apart from politics, yet if we cannot help ourselves in any other way—why, in the name of common sense, let us get money from the Government. Thank Heaven! there is always a little something saved up in the coffers of Uncle Sam.

Let me hope that you will do all in your power to further and develop the medical sciences in general, and aid in the speedy inauguration of wiser methods of teaching in our American medical schools in particular, and then the day will be nigh when we can exclaim:

"Three cheers for Home Industry from a medical point of view!"

*Cocaine and Sulphonal.*—It is announced that by an Imperial decree the employment of cocaine and sulphonal has been interdicted throughout the Turkish Empire.

## CORRESPONDENCE.

### "INFECTION" AND "CONTAGION."

To the Editor of THE MEDICAL NEWS,

SIR: I was much pleased when I took up the last number of THE MEDICAL NEWS, to see the title "'Infection' or 'Contagion?—A Question of Definition," at the head of the editorial page, for certainly these terms are used very loosely, and whatever will give them a clearer definition will be of much practical value in classifying all discussion in which they are used. I only regret that I cannot wholly agree with you in your conclusions and recommendations. It is most certainly true, as you suggest, that it would be very desirable to have one generic word (for which you recommend zymotic), and let others be included within this, which shall apply to those diseases the *materies morbi* of which respectively are and are not carried by the atmosphere. And there is certainly no etymological objection to the use of the words that you suggest. But good usage is the arbiter of definitions, and if good and general usage sanctions a certain definition, it seems to me that it is unwise and conducive to the continuance of misunderstanding to urge any other definition, even though it be the more desirable. As regards "infection" and "contagion," these words as used by those who have occasion to employ them most frequently and with the most exactness, have, I have thought, acquired a very definite and much broader meaning than you would give them. Infection is very generally used in the sense given by Foster in his first definition, viz., "The act or process by which disease is set up in an organism by the implantation of morbid germs from without. . . ." Thus the American Public Health Association has a standing committee on Preventive Inoculation in the Infectious Diseases, meaning thereby all diseases which were formerly included in the term zymotic. If I mistake not, this broad meaning of infectious is the one in which it is used by Sternberg, Welch, Prudden, Ernst, Gerster, Vaughan and Novy, and many other American sanitarians, bacteriologists, and chemists. Indeed *infectious* is used to include even more than the "germ" diseases, for it is applied by Leuckart to infection by trichinae and other macroscopic parasites, and by Vaughan and Novy to diseases produced by ptomaines. Among English writers and in English laws infectious disease is commensurate with germ or zymotic disease, as may be instanced in writings of Sanderson, Klein, Simon, Newsholme, and Wynter Blyth. The like use is universal on the Continent, and the *Infectionskrankheiten* of the German Sanitary Bureau is even broader than "germ diseases," and is so used by Koch, Fraenkel, Hueppe, and indeed all German authors that I recall. Among the French, *maladies infectieuses* has about the same general meaning as *Infectionskrankheiten* among the Germans, and is employed in such a sense by Pasteur, Metschnikoff, Gamaleia, Roux and Yersin.

*Contagion* is generally employed, by those whose usage I think should be authoritative, very nearly in accord with Foster's first definition, viz., "The communication of disease from one individual to another by means of direct or mediate contact. . . . This is

substantially Prudden's definition. So, too, when we ask, as so many have in the last score of years, "Is consumption contagious?" the desire is to know, not whether it is transmitted by contact, but whether its cause can be carried by the air or in *any* way.

The best and most general usage to-day defines *infection* as the poisoning of the body by living organisms or their products, and *contagion* as the transmission in any manner of the *materies morbi* from one living body to another.

This use is so general, that no matter how strongly it may meet with our disapproval, it seems to me the greatest aid we can give to clear writing is to conform to it.

Respectfully yours,

CHARLES V. CHAPIN.

PROVIDENCE, R. I.

#### A FRAUD.<sup>1</sup>

To the Editor of THE MEDICAL NEWS,

SIR: In some of the American lay journals, especially in Cincinnati, the following misuse is made of the name of Virchow.

These journals contain an announcement that the great German physician, Dr. Karl Virchow Schiek, has just arrived from Germany and is prepared to give consultations. He claims to have made important discoveries in the germ treatment of chronic diseases, and that his prescription is used by 806 European physicians.

No physician of this name is to be found in any of the official registers of Berlin or Germany.

The intention of this man is evidently to mislead the great public by means of the name Virchow.

Yours very truly,

DR. S. GUTTMANN, M.D.,  
Editor of *Deutsche med. Wochenschrift*.

BERLIN, February 11, 1891.

#### NEWS ITEMS.

*A Public Sanatorium for Vienna for the Treatment of Pulmonary Diseases.*—At the suggestion of Professor v. Schrötter, an association has been formed for the establishment of a sanatorium in the vicinity of Vienna for the treatment of indigent patients with pulmonary affections. Baron Rothschild has contributed one hundred thousand florins (forty-two thousand dollars) in aid of the movement.

*Medico-Chirurgical College of Philadelphia.*—The Chair of Obstetrics has become vacant through the resignation of Dr. E. E. Montgomery, who will hereafter devote himself entirely to the Chair of Gynecology.

#### BOOKS AND PAMPHLETS RECEIVED.

Transactions of the Detroit Medical and Library Association for 1891. Detroit, Mich., 1891.

Tuberculin: the Value and Limitation of Its Use in Consumption. By Charles Denison, A.M., M.D. Reprint, 1891.

Elektrotherapeutische Studien. Von Dr. Arthur Sperling, of Berlin. Leipzig: Th. Griebe's Verlag (L. Fernau), 1892.

Trendelenburg's Posture in Gynecology. By Florian Krug, M.D. Reprint, 1891.

<sup>1</sup> Translation kindly furnished by Dr. Simon Baruch, of New York.

The Treatment of Lupus by Tuberculin. By P. G. Unna, M.D., of Hamburg. Reprint, 1891.

Medical and Surgical Gynecology. By S. Pozzi, M.D. Translated from the French Edition under the Supervision of, and with Additions by, Brooks H. Weils, M.D. Vol. I, with 305 Wood-engravings and 6 Full-page Plates in Colors. New York: William Wood & Co., 1891.

The Etiology, Pathology, and Treatment of Diseases of the Hip-joint. By Robert W. Lovett, M.D. Boston: G. H. Ellis, 1891.

Human Monstrosities. By Barton Cooke Hirst, M.D., and George A. Piersol, M.D. Part II, Illustrated with 13 Photographic Reproductions and 25 Woodcuts. Philadelphia: Lea Bros. & Co., 1892.

Tenth Annual Announcement and Catalogue of the St. Louis Post-Graduate School of Medicine, 1892.

A Statistical Review of the Proportion and Cause of Blindness, etc. By Howard F. Hansell, M.D., and James H. Bell, M.D. Reprint, 1892.

Impure Air and Ventilation of Private Dwellings. (The Orton Prize Essay.) By Howard Van Rensselaer, M.D. Reprint, 1891.

The Aseptic Closure of Long-standing Sinuses, etc. By H. Augustus Wilson, M.D. Reprint, 1891.

Report of a Case of Spina Bifida. By H. Augustus Wilson, M.D. Reprint, 1891.

Scope of Orthopedics, etc. By H. Augustus Wilson, M.D. Reprint, 1891.

The Library of the Medico-Chirurgical Society. Pamphlet, 1892.

On the Collection of Samples of Water for Bacteriological Analysis. By Wyatt Johnston, M.D. Reprint, 1892.

Pudendal Hematocele in the Non-puerperal State, with a Report of a Case. By E. Stover, M.S., M.D. Reprint, 1892.

Practical Midwifery. A Hand-book of Treatment. By Edward Reynolds, M.D. Illustrated. New York: William Wood & Co., 1892.

The Tonsils in Health and Disease. By Harrison Allen, M.D. Reprint, 1892.

A Study of Mycosis Fungoidea, with a Report of Two Cases. By Henry W. Stelwagon, M.D., Ph.D., and J. Leffingwell Hatch, M.D., F.R.M.S. Reprint, 1892.

The Weather and Climate—Clothing. By George Wilkinson, M.D. Reprint, 1892.

Formulaire Moderne. Par le Docteur R. Vaucaire. Préface de M. le Docteur Talamon. Paris: Rueff et Cie, Editeurs, 106 Boulevard Saint-Germain, 1892.

Lectures on Pathology, Delivered at the London Hospital. By the late Henry Gawn Sutton, M.B., F.R.C.P. Edited by Maurice Eden Paul, M.D., and Revised by Samuel Wilks, M.D., L.L.D., F.R.S. Philadelphia: P. Blakiston, Son & Co., 1891.

Official Transactions of the National Association of Railway Surgeons, 1891. Illustrated with Portraits of the Officers of the Association and Others. Chicago, Ill.: Published by the Rail-way Age and Northwestern Railroader.

Additional Experiments to Determine the Lesion in Quinine-blindness. By G. E. de Schweinitz, M.D., with Photo-micrographic Studies by William M. Gray, M.D. Reprint, 1891.

Neuroma of the Right Upper Eyelid and Adjacent Temporal Region. By G. E. de Schweinitz, M.D. Reprint, 1891.

Living Larvæ in the Conjunctival Sac. By R. J. Phillips, M.D.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will upon publication be liberally paid for, or 250 reprints will be furnished instead of payment, provided that the request for reprints be noted by the author at the top of the manuscript. When necessary to elucidate the text, illustrations will be provided without cost to the author.

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